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METAPHYSICS OF EDUCATION

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THE METAPHYSICS OF EDUCATION.

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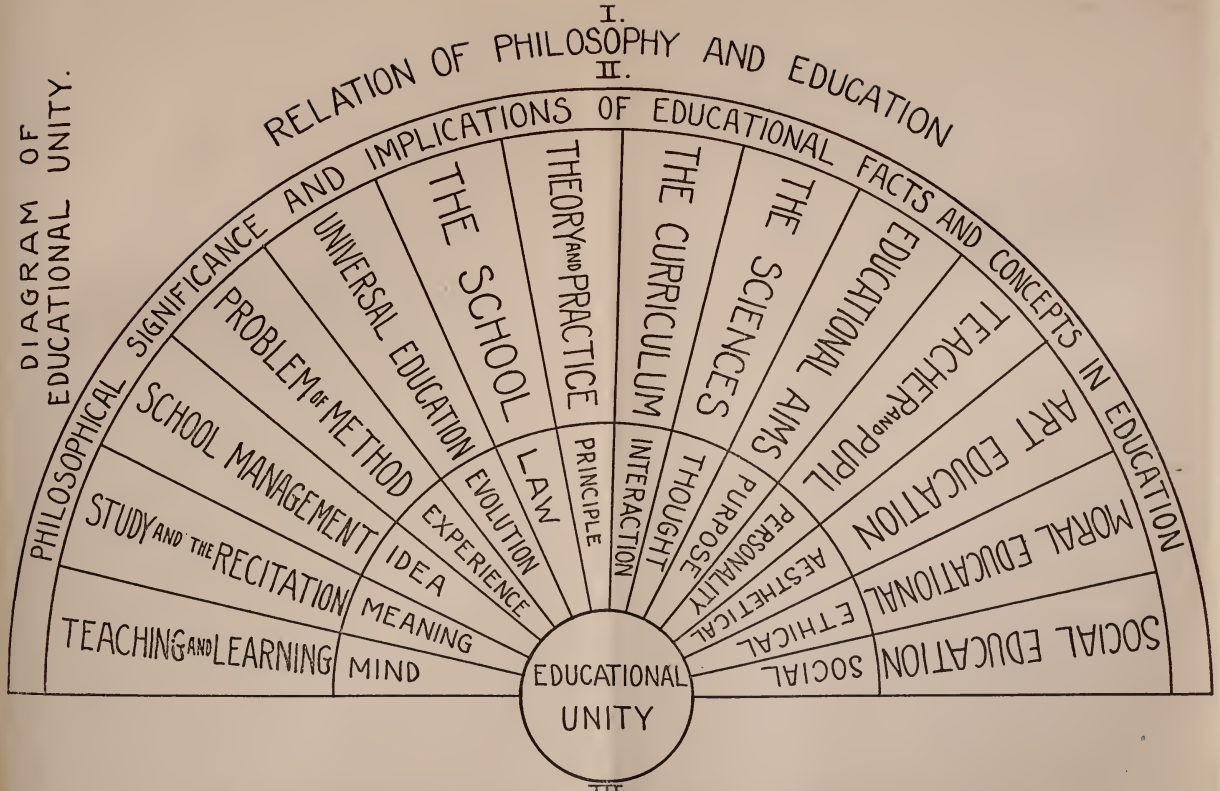
PREFACE

An attempt is made in this volume to unify the various factors in education into an organic whole. There is an underlying principle running through the discussion which gives unity and coherence to the multiplied facts and activities in education. A metaphysics of education grounds the facts and processes of education in a world principle and shows how this principle takes care of the practical problems of education. This text emphasizes the fact that there is an inner connection and an inner penetration of philosophic principles and educational facts.

A comparative study is made of *educational facts* and *basal concepts in education* in order to test their philosophical significance and implications. Such facts as teaching, the school, the curriculum, educational aims, etc., are compared and related to mind, law, interaction, purpose, etc. These problems are studied inductively beginning with the concrete educational facts, deriving the fundamental conceptions in education and finally relating both facts and concepts to a universal principle which binds both together into a harmonious whole.

Finally a critical study of the principal philosophical systems is made to ascertain what influence each system, atomism, rationalism, pragmatism, idealism, etc., has had on educational theory and practice. Our pedagogical literature is filled with metaphysical concepts and it is impossible to teach even one of the common branches without using philosophical principles. Systems of thought create systems of education; methods of thought determine methods of teaching. In fact our whole educational procedure is permeated and colored by philosophic thinking.

I am indebted to Dr. H. H. Horne of New York University for many valuable suggestions in the preparation of this text and for a clear exposition of philosophy related to education. Also to Dr. Charles Gray Shaw of New York University for some illuminating lectures on the deeper problems of philosophy. Also to my wife for much valuable assistance in the preparation of the book.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The Metaphysics of Education.

I.

THE RELATION OF PHILOSOPHY AND EDUCATION.

The problem of the metaphysics of education is to discover the underlying, unitary principle of nature and mind, and to indicate how this universal reason reveals and realizes itself through processes of philosophy and education. That there is an immanent reason in the world connecting mind and matter is the presupposition of both philosophy and education. Since philosophy and education are manifestations and activities of this unitary principle, they have a common function of aiding the individual to realize his true worth and destiny. As man is free only when he is thinking, philosophy early became a means of self-realization and education drew its life and inspiration from philosophical sources. If truth is attained by thinking, and thinking is a means of self-realization, then education must be philosophical and philosophy must be educational.

Modern education is dominated and influenced in both theory and practice by some philosophical mode of thought. Both evolution and teleology have permeated educational procedure and have given us the principle of becoming or development, and the principle of purpose or aim in life. Since metaphysics is a philosophy of the real, a metaphysics of education should

keep close to palpitating reality. In other words, our philosophy which is to interpret and explain education should be grounded not in the molecular movements of physical things but in the unitary and eternal principle of the world. Philosophy determines what this principle is, how it is related to mankind and the world, and education applies the principles to the practical problems of life.

All philosophy and education are based upon experience and a complete theory of experience would be a real philosophy of education. It is the task of philosophy to deepen, to expound and interpret experience and amid the manifoldness of appearances to seek a final unity or world-whole. Reason demands a primal cause of the world and a fundamental principle upon which to base all educational theory and practice. Instead of thinking by the old category of substance, the educator now thinks by the new category of self-activity. Self-activity which carries its primal impulse in its own bosom, explains not only substance and the Kantian *Ding-an-sich* but also the fundamental principle of all educational work. It is one thing to have an ultimate principle in education but a better thing to trace this principle back to its primal source from which it comes and through which it acts; namely, "The Infinite and Eternal Energy from which all things proceed."

We find this self-active principle in the possible and actual of Aristotle, in the monads of Leibnitz, in the phenomenon and noumenon of Kant, in the ego and non ego in Fichte, in the will of Schopenhauer, in the idea of Hegel and in the inner connection of Froebel. According to modern science as well as philosophy we are taught what is, is activity and that activity gradually develops into higher and higher

forms until it becomes self-active and self-determined. From the activity of the inorganic world we pass to the activity of plant and animal life, into the self-activity of man and finally reaching the supreme activity of the absolute. Modern educational theory is usually based on neural action and has no relation to the all-embracing, eternal principle of the world, and has not, therefore, the permanence and continuity that is found in an idealistic doctrine. It is possible to relate the actual concrete processes in the school to an eternal reason, for that principle of existence always manifests itself in some objective process in the physical, civil, social or intellectual world. The essence which represents this absolute unity must be personal, and, therefore, the activities of the school room have a connection with the world grounding principle. Philosophy apprehends this principle as an original self-conscious unity which is the eternal and primal cause of all things. The Ionic thinkers called these principles water, fire and air; Anaxagoras, *nous;* Schopenhauer, will; Hegel, idea; and Lotze, Absolute Personality. These are different expressions for the ground of all unity, the root of all being, the condition of all consciousness and the foundation of all education. While it is true that the finite mind cannot completely understand the infinite, yet in this system of thought the educator is able to orient himself and understand the stream of influences pouring in upon him from the original source of things.

The educator may ask, Of what value is monistic idealism to me if I cannot understand the one and cannot know it is spiritual? The eternal reason of the world is what it reveals itself to be and is much more than we can understand it to be. However,

we see this universal reason manifested in the world of appearance and if we could not interpret the outer order of things it would be the despair and negation of all thought. If my life and my thought enter the all-embracing life and thought of the world it is to me no unknowable thing-in-itself but is rich in the possibilities and actualities of a living, throbbing existence.

According to Kant metaphysics is the science which advances from the knowledge of the sensible to the knowledge of the super-sensible by means of reason. According to the educator we go from the concrete to the abstract, and it is as educational as philosophical to say that thoughts without contents are empty and intuitions without concepts are blind. It is as necessary to make our concepts sensuous as to make our intuitions intelligible. Both of these propositions are wrong, pedagogically speaking, and neither can exchange the function of the other for the understanding cannot see, neither can the senses think. In all thinking, scientific interest must culminate in philosophic interest, and philosophy must have a unitary conception of the world. The Kantian philosophy teaches us to apprehend the world and all its products as appearances, and sets forth the doctrine that ultimate reality is unknowable.

In his introduction to the Logik, Hegel says "that his philosophy does not in the least neglect empirical facts contained in the several sciences but recognizes and adopts them; it appreciates and applies towards its own structure the universal element in these sciences, their laws and classifications; but besides all this, into the categories of science it introduces and gives currency to other categories." From this statement it will be seen that Hegel began in

experience and said that the task of philosophy was to trace in nature, in the human mind, in social institutions, in history, and in religion an Immanent Reason. Hegel starts with the assumption of all science that existence and intelligence are one and that the mind can know the real which is the rational. According to Dr. Caird the human mind can know the real because man as a spiritual being can find himself in that universal thought and reason which permeates nature. Hegel himself says that human reason and divine reason are not absolutely different and hence human reason is able to comprehend its otherness in the divine.

Herbert Spencer in his Sociology supplements this same thought by saying "the final outcome of that speculation commenced by primitive man is that Power manifested throughout the universe distinguished as material, is the same Power which in ourselves wells up in the form of consciousness." Philosophy assents to this statement and declares that nature and spirit are stages in the evolution of an immanent and universal reason which pervades all existence, physical, intellectual, moral and educational. The Absolute, therefore, is not something bordering on the realm of dreams, but is the indwelling and informing life of the world and makes possible all physical, all conscious and all educational processes. Since the world movement culminates in man, Professor Laurie says, "there is a point at which the immanent universal will emerges out of self-consciousness and constitutes man." The whole world movement exists for man and the aim of man is self-realization or perfection.

In studying nature and education science deals with facts, but the scientist does not understand how

impossible it is for human thinking to stop at the scientifically known without pressing on to a study of the interrelation and connection of things. It is the aim of science to measure not to value, to discover not to explain, but it is the purpose of philosophy to explain and rationalize the world. The science of education cannot explain the personal relationship existing between things and beings, but merely divides part from part without taking into consideration their ground and connection. Dr. William Wallace says "the sword of the analyst smites asunder the unitary chords which binds the world together." The philosophy of education determines the last ground and ultimate principle of education and calls it spirit. Philosophy arranges the broken designs of nature and education and brings out the organic meaning of the whole. The science of education deals with efficient causes while philosophy of education discusses the final cause or supreme purpose of the educational process.

The metaphysics of education deals with a world-connection and education-connection and calls it an immanent spirit. Man as spirit is raised above the facts of nature and the facts of education and is capable of looking into the higher order of things and ascertaining that power and principle which bind him to the world as a whole. On account of the comprehension of experience, Herbart viewed philosophy as science and he might have added *until science grows philosophical it remains a mere bureau of registration.* Metaphysics springs out of a scientific endeavor to know the most universal paths of world-connection. The metaphysics of education is possible only upon the homogeneity of the world, physical, mental, social and religious. Metaphysics rests upon ex-

perience and moves toward a world unity and all philosophy of education must also rest upon the actual concrete facts of education and move toward that spiritual unity which is the source and origin of every process in education. Metaphysics is a science, the queen of all sciences, and differs from the other sciences not in its method but in its universality. It seeks the real in the world and the real in education and, therefore, attempts to relate the cosmic process to the educational process through a supreme reality. The science of nature and the science of spirit have their origin in one science, for all truth is ultimately one. Monism is a necessity of thought for the human spirit which is a unity demands that unity in the world which spiritual monism implies and we are, therefore, led to a spiritualistic theory of reality. The individual is at heart spritual, the school is an organic spiritual unity, and all education consists in mind estranging itself from itself and cancelling this estrangement returning to itself enriched, realized and completed. The unity amid all the complexities of education is the unity of ideas or the unity of the thinking self. The master impulse of modern thought is a desire for some kind of unity, not the physical atheism of the Ionics, nor the monism of Haeckel, nor the substance of Spinoza but an absolute spirit which is the self-existent principle of all things. The most rational supposition possible is a spiritual substratum, for it is impossible to conceive the soul save as a realization of spiritual potence and such realization must be rooted in an immanent spiritual principle as its world ground.

Scientific monism makes the psychical depend upon the physical and in its ignorance of epistemology makes matter rather than mind ultimate. In making mind depend upon matter rather than create it,

as idealism would do, it destroys its own monism which it seeks to establish. Such a philosophy fails to learn that man knows all he does only in and through consciousness and that his knowledge moves always within the spheres of human thoughts and human ideas. The atoms, forces and energy of a scientific monism must be replaced by the absolute of a spiritualistic monism, for Dr. Ward has clearly shown that a mechanical system of the universe is impossible.

According to Busse it is the absolute which is active around us and within us, in our inner life as in all other essences but whose workings rise not all up into our consciousness. Mental activity and activity in education are within us and have no meaning except the presupposition of theistic idealism. A metaphysical interpretation of education should give us a conception of the world in which subject and object, mind and matter, present a unity and in this unity we have an explanation for the outer order of things. Such a unity philosophy is constantly seeking and explains the world not from a scientific standpoint but from the point of view of a necessary world unity.

The theistic unity of the world of thought and the world of things is one in which a relative independence of the self and of the world is maintained and at the same time an effort is made to unify and combine them into an organic whole. The unity of the world must be a unity like that of our individual life which is a unity of a consciously realized end and purpose. As the universe must be intelligible to thought, as it is the revelation of reason, so education is constitutive and interpretative of an ultimate reality. Both the ultimate reality of the universe and the

ultimate reality of education are thought, for idealism affirms that reality is spiritual in essence. The absolute life enters our life, the absolute ideals become our ideals; and the absolute reason and consciousness are constitutive of our finite reason and self-consciousness. The universe in its core and essence is spiritual, for that which is manifested in the world and in education is a spiritual activity. The spiritual principle presupposed in knowledge and made manifest in nature, and the principle from which both are derived are world elements involving both nature and education.

The human mind is constantly seeking the real in the world, in humanity, in education, in society and in the state and when this real is attained and determined it turns out to be spiritual, for the universe is ultimately grounded in reason and based on rational thought. The fundamental real of the world is an archetypal ideal which has its home in the mind of the absolute. The physically real and the educationally real are manifestations of the spiritually ideal. The eternal laws and principles of reason, whereby the ideal passes into the real are all grounded in the universal reason. The world of real things is not a world of mere things but of things that are to us an expression of the ideal mind. Since the days of Kant we have been taught that the mind does not simply copy the world, but makes nature of its own constitution. To know the absolute which permeates all the activities of the world, both physical and educational, is to attain a knowledge which is knowledge by every law of thought and every principle of fundamental reason. Such a philosophy is theistic idealism because it traces matter to spirit and because it makes spirit that medium through which alone created matter is

known by us. Such an idealism is theistic as it preserves the relative separateness and distinctness of things which are manifested in the external world and in every process of education. The principle of interaction between teacher and pupil and between pupil and curriculum is made possible by a spiritualistic monism. Both nature and education are manifestations and expressions of the cosmic mind. They cannot be understood without thought and reason, and what can only be so understood must itself be reason and thought. The fundamental reality of the world is spirit, personal spirit, for the personal alone is necessary to the solution of the philosophical and educational problem. It is the purpose of a metaphysics of education to trace this personal spirit down through the world and through education and thus show the interrelation of philosophical thought to educational principles and practices.

Both philosophy and education ask the questions: What can I know? What should I do? and What may I hope? The first question is speculative, and, therefore, philosophical and hence educational, but cannot be answered by psychology and neurology. The second question is practical and moral and according to some thinkers the supreme purpose of all educational work. The third question is practical, theoretical and speculative and, therefore, has an educational significance. In regard to the first inquiry Kant says there are two stems of human knowledge, which spring from a common root unknown to us; namely, sensibility and understanding: objects being given by the former and thought by the latter. Knowledge gained by experience is a posteriori but general truths which bear the stamp of inward ne-

cessity are called knowledge a priori. The analytical judgments which are merely illustrative are not so valuable in gaining knowledge as the synthetic or expanding judgment, for in the former nothing is added by the predicate to the subject.

Education, and especially mathematics, are not possible unless space and time are made subjective. These are purely metaphysical questions and have a deep interrelation with the processes of education. Space and time are a species of stained glass through which the soul looks in gaining knowledge. If space is empirical, discursive and not a priori then there is no self-evident certainty of geometrical principles. Again if time is discursive, empirical and not a priori then arithmetic is not possible. According to Kant time and space are two sources of knowledge and we have an illustration of the interconnection of philosophy and education.

Another example of the relation of philosophy and education is a study of the categories which have a profound philosophical significance and at the same time a practical application to the most elementary problems of education. Aristotle made them objective; Kant, subjective; and Hegel maintained that the laws of thinking are the laws of being. Kant calls them, "the original concept of synthesis which belongs to the understanding a priori and for which alone it is called pure understanding; for it is by them alone that it can understand something in the manifold of intuition, that is, think an object in it." The categories are the immanent principles underlying articulate experience and make knowledge and experience possible. They lie in the understanding, form the frame work of thought and give form to all experience acquired.

The mind works according to these principles and reaches knowledge only through them. Locke claimed that all knowledge is obtained through experience; Hume reduced experience to impressions; Kant showed that if experience is to become articulate it is by means of the organizing activity of the mind, according to principles immanent in the understanding. When Kant says that the understanding makes nature he does not mean that he creates the cosmic reality, for that exists in its own right. The nature which Kant's understanding made is epistemological. The mind can build up a world of knowledge because the pattern is implicit in the mind, and nature in this sense is the product of our own thought. It is by means of the laws of nature immanent in us that a knowledge of objective nature can possibly arise.

The schematism of the categories is a philosophical question but has an interrelation to education and to the process of learning. To schematize is to make the object and concept homogeneous. "The empirical concept of a plate is homogeneous with the pure geometrical concept of a circle, the roundness which is conceived in the first forming an object of intuition in the latter." The schema of the conception of 100 is the thought of a process of synthesis by which we combine 10 groups of 10 units into 100 and the schematism of the conception of 100 is the process by which it is done. The schema relates to us and not to the 100, and the succession not in the object but in the act of comprehension.

Since time is homogeneous with the category and homogeneous with the phenomenon, it is selected as the chief element of the schema. The categories schematized connect the understanding with the objective world. According to Kant the categories

must be schematized to represent an object but according to Hegel the objective categories of the thing parallel the subjective categories of thinking.

Philosophy grasps the universal elements in human knowledge and discusses the connections between the various phenomena of the world. It is impossible to teach the different departments of knowledge scientifically without showing their relation to each other and without an insight into their organic unity. It is as true as it is trite to say that to understand one subject thoroughly many other subjects must be known and, therefore, philosophy is an absolute necessity in the educational process. There is a difference between a forced correlation in education and the unity, the scientific and philosophic impulse strives to attain. Science, philosophy and education are constantly searching for the unity in the world and to produce in thought that systematic order, harmony and unity which exists in things. When education seeks for the unitary principle of the world it becomes philosophical. In finding reason, rational coherence, connection and system in things, education fulfills the secret stimulus of intelligence and the desire for knowledge. The most fundamental principle in education is that in nature, in man, in spirit, in all objects there is no dualism nor gap which thought cannot bridge, and hence philosophy which aims at a unitary knowledge of the world is the most valuable of all educational subjects. Philosophical education seeks to unify the isolated sciences and to give explicit insight into the continuity of the world and tries to ascertain that causal relation which binds things together.

Evolution and idealism have given organic unity to the world and have taught us that there is a unity

of principle underlying all diversity of things. The unity of the world which these two modes of thought give us is not an aggregation, but a process in which the lowest step prophesies all the succeeding steps and as Aristotle would say, the end to be attained presupposes, comprehends and justifies all that precedes it. Evolution and idealism explain the true nature of the world and show that there are no leaps nor gaps in existence but continuity, coherence, intelligence, succession and law. A true education must teach us that the lower class of relations points to the higher and the higher gives a deeper explanation of the lower. The educational process gradually leads us from a knowledge of nature and life to a knowledge of a thinking mind which thinks both. Philosophy gives education the underlying principle of the world and knits all existence into one coherent relationship. However, there are some thinkers who would entirely ignore metaphysics, who would begin with facts and end with facts and who would make ideas a product of nature, and mind a function of matter. But it is impossible to build up a world of experience without ideas and thoughts for in thinking matter which is supposed to function as mind we presuppose mind and become metaphysicians in spite of ourselves. A fact of observation is not a bare fact, a fact minus mind, but a fact to an observing mind, a fact surcharged with thought and having the spiritual an element inseparable from it.

The teacher constantly uses the terms, law, force, matter, unity, identity, difference, cause, effect, substance, properties, and other metaphysical terms and philosophizes in teaching many subjects. In teaching cause and effect in geography, likeness and difference in grammar, and substance and attribute in

many subjects the teacher unconsciously thinks in philosophical nomenclature. The teacher usually protests against using any metaphysical speculation and abhors philosophy as nature does a vacuum and at the same time in his teaching in the grades of the public school, he cannot teach five minutes without using some metaphysical term. He discusses the cause of day and night, the change of the seasons, the properties of objects or action and reaction in physical phenomenon. He may think he is scientific and protest against any philosophical speculation but when he uses the terms, cause, change, properties and action he is dealing with purely metaphysical problems.

In nature study the teacher speaks of the qualities of the specimens, the growth of the plant and the nature of an object and he must be taught by philosophy to realize that these elements of knowledge taught in the grades cannot be thoroughly understood unless he studies, "the first principles" of metaphysics. A child and indeed some teachers and thinkers will say that the nature of a thing is found in its sense-qualities. According to Descartes the attribute expresses the essence of a thing and tells what it is; according to Colonel Parker an attribute is an energy working through matter. Bradley says that the nature of a thing is its qualities and that the unity of whiteness, sweetness and hardness constitute sugar. But in fact the nature of a thing is not found in its qualities but in the dynamism, law or principle which determines the form and character of its activity. Whatever may be the nature of a thing, whether it be quality or law, the thing that appears in our mind is a mind thing and we, therefore, conclude that the thought of a thing harmonizes most intimately with its law. Plato makes

the nature of a thing the idea in which the thing participates. Aristotle makes an advance upon the Platonic theory and says the nature of a thing is its purpose or end. Purpose expresses the nature of a thing because it is the norm according to which the thing is made and it, therefore, becomes the determining activity of the thing. To understand the nature of objects used even by the children in the kindergarten and in the elementary grades we pass from common sense through science to philosophy. All knowledge begins in experience, except the laws and unities of science but finds the true unity in the hidden relations, laws and principles of metaphysics. Philosophy seeks the permanent amid the variable and strives to ascertain the unifying principle which co-ordinates the multiplicity of things, and attains a knowledge of reality only upon the presupposition of a thinking Self. We connect things and facts together in an orderly system by means of the synthetic principle which the educator must know if his processes are to be rational.

That philosophy and education are organically related is proved by the fact that the real in education is the real in philosophy and the real in the world. This reality which binds all existence into a unity is a thinkable reality and is one capable of entering into thought. The thought which is in education, in philosophy and in all things is not a thought that we create but which we discover and which is independent of us but which at the same time our intelligence is able to grasp. Both education and philosophy start with the presupposition that the world is intelligible and that there is reason or thought in things and that science, philosophy and education are striving, each in its special sphere, to discover this ration-

ality. In studying the inner meaning of a school and of education we see they are dominated by reason and intelligence and are, therefore, organically related with the eternal reason that rules the world.

What the educational philosopher finds as the unity of the world is not something foreign to mind but something essentially rational and something that reveals the world to an observing mind and by annulling the estrangement brings mind back to itself. A metaphysics of education depends upon the fact that we see our better selves in nature, in the school and the social world. The natural laws which show that things belong together and which link objects into an ordered system and which bind individuals together in the school and which makes teaching organic, are rational relations and are not foreign to the mind itself.

If nature is shot through with reason how much more is the school, teaching and education pierced by these spiritual balls, for in these educational and social relations the individual can only attain his true worth by associating with other individuals of similar rationality. Education studied philosophically rests upon the presupposition of the unity of knowing and being, of the thinking mind and the thing to be learned. In fact we cannot think much less teach unless we imply a consciousness which is the unity of thought and thing and, therefore, the educational process can best be explained by some form of idealism.

It is difficult to understand that kind of unity which belongs to spiritual things which organizes education and unites the human soul with the outer world in the process of knowing. It is not a unity of juxtaposition, nor aggregation, nor succession but it is a unity of elements which internally involve each other and

which can be apprehended only by the deeper insight of philosophical speculation. Education should be studied from the philosophical view point because the ultimate principles of education cannot be known by science or ordinary thought but belong to the domain of philosophical inquiry. We have said that the school is a spiritual organism and that education is based upon the theory that mind and nature are not two independent things but are two members of one organic whole. If nature, language and literature were not essentially related to mind, knowledge would be impossible for thought could find nothing in the objective world which it could grasp and make it its own. Since the objective order is rational, and since universal reason exists in the world, then the objective order yields itself up to intelligence and knowledge and education become possible. It is philosophy that teaches us that nature is a reflection of mind and that mind finds itself in nature. It is the purpose of a metaphysics of education to show that mind, nature and the absolute belong to one organic system of knowledge and that in knowing one we are led to an understanding of the other two. Such a study shows the deeper relation between mind and nature, between mind and the eternal reason, and connects the processes of education with the processes of the world.

Having discussed the general relationship between philosophy and education, the more scientific relations will be studied in order to show how education grows out of philosophy and how educational systems and methods have been modified and influenced by philosophical thinking. In its original significance, philosophy is a striving after wisdom and education early took on to itself a similar meaning which was to know what is. However, some thinkers thought

it more rational to study the practical conduct of life, and education then took on an ethical significance. In his thinking the philosopher developed many lines of human inquiry and created a real curriculum for the direction and development of the individual. Early education grew out of the primitive philosophy and religion; religion afforded a guidance of life and a general view of reality; philosophy, Windelband says, is to ground, defend and develop dogma. From religion, education obtained the doctrine of divine revelation and from philosophy, the doctrine of human knowledge and human conduct. As the philosopher became more free in his thinking and more independent of the church, he acted more independently in the solution of the problem which was common to both religion and philosophy.

Philosophy first presented and defended the thesis of religion, then criticized it and lastly became independent of it and explained the nature of things by human experience, thought and reason. As the subject matter of philosophy has changed so the subject matter of education, which is to perpetuate philosophy, has been modifed and adapted to meet the needs of growing life. It was the function of philosophy to attain a scientific insight into the nature of the world and human life and education has gathered from philosophy the rich sheaves of thought which has modified and developed human life. The foundation of philosophy was shaken by Kant who attempted to show that a metaphysical knowledge of the world is impossible and that the only function of philosophy is a critical consideration of reason. Philosophy gradually became a universal science and education took on to itself the scientific impulse. Philosophy accepts the truths of science and attempts

to explain what science merely describes. Philosophy is not merely related to the sciences but to the religious, ethical, social, aesthetical and educational activities of life. Education gathers these many threads of thought into its curriculum and builds up a theory and practice of education based largely upon problems of philosophical inquiry.

The educational thought of each nation has grown parallel with its philosophy. The philosophy of India has not only controlled her education but has molded her life and thought and determined in a measure her religion and worship. The Brahmins philosophically introduced the law of causality into the spiritual world and made each transmigration of the soul the result of a previous state of life. The deed in the preceding life determines the present life of the Indian, and Karma (deed, law, fact,) governs transmigration and is the key to their life. It will thus be seen that Indian education is dominated by philosophy and that salvation is through education. The philosophical teaching of the Swami still educates the people and education is thus seen to be the perpetuation of philosophy.

The dictum of the Buddhist is not what must we do to be saved but what must we do to be absorbed. According to Buddhism *nothingness* is the principle of all things; all things come from *nothingness* and all things pass into *nothingness*. The pedagogical significance of this philosophy is, man must seek to assimulate himself to this principle by doing nothing, wishing nothing and desiring nothing. For the Buddhist self-realization is to free one's self from activity. Their education is highly colored by their philosophy and to understand their education, we must study their philosophy. The chief interests of the Buddhist philosophy are,

its eternal system of retribution or Karma, its instincts for the avoidance of evil, its rejection of a super-phenomenal ego, its belief in moral causation and its hope to rob evil of all power here and hereafter by molding life and character through education.

Hebrew philosophy is a synonym for Hebrew education. It fact Jewish philosophy is a philosophy of wisdom, human wisdom applied to human conduct and divine wisdom which is the principle of the harmony of the world. Their education was based on the Torah or law and was moral, religious, practical but not scientific. Their philosophy was more universal than their education but their education is older than their philosophy. Jewish philosophy was not grounded in the phenomenon of nature but rather in the phenomena of society. Both their education and philosophy are ethical and religious and both hold their body in low esteem. The aim of their education was wisdom and the aim of their philosophy was to make the world of nature a robe of glory, a servant of Jehovah and subject to his command. The one principle object of Jewish life was moral and religious training, and the one great conclusion of the whole matter was to "Fear God and keep his commandments: for this is the whole duty of man."

The Sophists, especially Protagoras, Gorgias, Hippias and Prodicus, were a group of philosophers who were at the same time teachers. These men carried their philosophy from school into public life and taught the people what they had learned, partly out of the noble impulse to teach their fellow citizens and partly for pay and for honor. Their logic was a logic of opinion rather than a logic of truth; they put emphasis upon perception and taught that all truth is rel-

ative. In ethics they declared that man is the measure of all things and that right is a matter of individual opinion. The Sophists rejected the theoretical and emphasized the practical in politics, eloquence and ethics. They taught everything that was known at their time, politics, rhetoric, grammar, mathematics, etymology, geography, history and ethics. Their method of teaching was conversational and they shifted education from the scholar to the citizen. In general we may say that the Sophistic philosophy was the Sophistic curriculum and their chief interest was in humanity rather than in nature. The Sophists gave their attention chiefly to the analysis of the feelings and impulses which lie at the basis of action and were interested in questions of justice. They were teachers when Greece needed teachers and taught truth not for truth's sake but for the sake of action and conduct.

When Thales declared that water was the essence of being, man began to think. His thought was seeking the thought of all things; thought was in search of itself. In Socrates thought finds itself as the immanent creative principle of all existence. What Thales implicitly sought Socrates explicitly stated. Socrates showed mankind how to extract the concept or universal of an object out of the fleeting notion. His basic maxim was both philosophical and educational: Know Thyself. In thought the thinker recognizes the self knowing ego as the creative principle of the objective world. Snider says, "The self knowing itself sees this process of self-knowledge to be the process of all things." The self-knowing ego had been announced by the Sophists but Socrates proclaims that this ego knows itself as object, the principle of the world in which man is to find

himself. The world is thought which his thought must recognize in order to obtain true knowledge. In terms of Anaxagoras his *nous* must recreate the all creating *nous* by thinking it. The maxim to Know Thyself means to know thyself as man, humanity, universal, not an introspective act but an extrospective look at the creative soul of the world whose process is truth itself. Socrates perfected the saying man is not simply man as the measure of things *but man as thinker*, as the maker of concepts, is the measure of all things. Having reached the general concept by induction he applied it to human conduct.

His method of teaching was catechetical, conversational, inductive, illustrative, giving thoughts universal validity. The Socratic irony was a keen edged sword which he used effectively in all his teaching. Socrates said it was unreasonable to quiz things divine before we understood things human. He did not study nature but human nature and is said to have brought philosophy down from the clouds to dwell among men. According to Socrates virtue is knowledge and if we know the right we will do the right as no one intentionally does wrong. The teacher-philosopher taught his philosophy, lived his philosophy and died for his philosophy. He had great influence upon the methods of teaching and his maieutic art is still practiced by teachers all over the world. His philosophy was a philosophy of education and put the teaching process upon a rational basis. The aim of his philosophy and education was to develop in the individual the power of forming universals which was accomplished through the dialectical process. Philosophically speaking dialectic is the process of formulating general notions from

particular notions. From the educational standpoint the dialectic is the conversational method systematized and rationalized and is the method by which knowledge, truth and the universal are attained. From the psychological point of view the dialectic is the formation of concepts from percepts. The aim of education to Socrates was to develop a knowledge of practical life having universal validity.

Plato agreeing with Socrates that a new bond of moral life should be organized, worked out the problem of institutional life. This new bond was to be in ideas and intelligence which united men into an organic unity. According to his epistemology knowledge consists in ideas not in objects, in universal rather than in concrete conceptions. For Plato the idea is the veritable essence, the true reality, the original life-giving form. The realities are arranged in a series of goods until the uitimate good is attained. The good of all existence realizes its function by harmonizing with the originating idea. Since knowledge is the harmony between the idea and the phenomenon, the aim of education is to develop this knowledge, this virtue, this good. Plato's idea of education excelled that of Socrates by making knowledge the basis of moral life through the philosophers who are to be the rulers of society.

The philosophers know the highest good and society must be so organized that the lovers of wisdom shall control the republic. Plato organized society upon a psychological basis and added a system of education to correspond with each civic activity. The function of the state correspond to the faculties of the mind. Education has for its purpose the discovery and development of the qualifications of the

individuals in each class, and provides for the fullest development of personality in and through the social whole. The power is in the hand of the philosophers who live in the realm of divine ideas, but who are mundane enough to become teachers and absolute rulers of the people. His education consists of gymnastics for the body and music for the soul. The educational scheme of Plato was utopian, was the product of an ideal philosopher but is the basis of all modern discussion upon the social phases of education. The Republic is the embodiment of reason and the ideal through which the highest good is attained . Since the philosophers are closely united with practical life, we have an example of philosophy not only determining education, but guiding and controlling the life of a people. The philosopher is the free man, who knows and appreciates truth, who devotes his life to the contemplation of truth and the government of society.

The idea of education in The Republic is nurture and the human soul is considered a living essence subject to development and guidance through education. The philosophic spirit cannot exist in its fulness and integrity without involving all that is good and noble in human character. The philosopher who lives in fellowship with the good and orderly grows himself to be orderly and divine. In the unchangeable order and beauty of the universe he sees that universal reason which is reflected in himself. The dominant impulse of the philosopher is the impulse to know the truth and to know the reason and to see them as convergent parts of one organic whole. The scheme for the education of the philosopher was an emphasis upon philosophical inquiry, intellectual activity and the contemplation of the good. Plato thought that his

scheme of education would secure happiness for all by placing every individual into the class to which he belongs by nature. It gives every individual citizen a free expression of his nature connected with the well-being of the whole.

The following quotations fom The Republic show the relations between philosophy and education:

1. The beginning is the chiefest part of the work in a young and tender thing.
2. The direction in which education starts a man will determine his future life.
3. Those who see the absolute, the eternal and immutable may be said to know.
4. Philosophers only are able to grasp the eternal and unchangeable.
5. The knowledge of the Good aims at the eternal and not the perishing.
6. It (dialectic) raises the eye of the soul to the universal light which lightens all things and beholds the Absolute Good.

Aristotle had a greater influence upon philosophy and education than any man ancient or modern. In searching for truth instead of using the Platonic dialect, he substituted the method of induction and became the father of all true science. The principle of induction which has had such a great influence upon education was used by Aristotle in every field of research. According to his principle of induction the divine intelligence reveals itself objectively and subjectively, and truth is the harmony of the two. The divine is not only the immanent idea in nature and in mind but is the transcendent mind also.

A great wealth of education sprang out of the philos-

ophy of Aristotle. He formulated logic with its syllogisms, premises and conclusions. His theory of judgment is still studied in schools and his figures of the syllogism are a permanent contribution to knowledge. As a result of his fertile mind we are still discussing the potential and actual, the individual and universal, form amd matter, deduction and induction, concept and definition, purpose, cause, principle, energy, maxim, motive, faculty, habit, mean, extreme and the categories. He has given to the world of thought logic, politics, poetics, physiology, mechanics, physics, metaphysics and ethics. He agreed with Plato that politics has for its function to produce the greatest good to mankind and that education is the preparation of the citizen for the good life. Aristotle maintains that ideas have no independent reality but exist as forms in objects. Plato sought the good in the individual consciousness, while Aristotle sought it in the race consciousness, and made happiness the goal of all human endeavor. He distinguished between the well-being or the goodness of the intellect and well-doing or the goodness of action. He does not believe with Plato that virtue is knowledge but thinks that virtue is the functioning of knowledge.

The method of Aristotle was objective and scientific; he sought truth in the objective fact of nature, of social life and of the soul. He said we must see the difference between reasoning down from first principles and reasoning up to first principles. He further says that man is a political animal and that the highest good can be realized only in the state. His ideal conception of education is gymnastics for the body, music and literature to develop the moral nature and science and philosophy to develop the rational part

of the soul. Music is valuable as it affords relaxation, intellectual enjoyment and has a high moral value.

The following quotations from the Politics of Aristotle show the relation between philosophy and education.

1. A liberal education is a preparation for citizenship wherein all citizens are ruled and rulers.
2. The end of the state is the happiness of the individual.
3. Virtue and good order of the state depend upon the virtue and good order of the individual.
4. Education is public, for all and for the good of all.
5. Education is made the business of the state.

Since Plato and Aristotle have had such wide influence upon education, and since their systems of philosophy and education are so closely related a comparison will show more fully their intimate relationship. Plato awakened the philosophic impulse; Aristotle, the scientific spirit; Plato recognized the creative activity of consciousness; Aristotle said true reality is at heart activity; for Plato, ideas participate in things; for Aristotle, ideas are immanent in things; according to Plato ideas are patterns of things; according to Aristotle the being of a thing has its reality in its realization; Plato, the soul is divided into reason, spirit and appetite; Aristotle, the soul is divided into vegetative, animal and rational; Plato claimed the immortality of the soul; Aristotle claimed that the soul is the entelechy of the body; Plato, wisdom, courage and moderation correspond to the three-fold division of the soul; Aristotle, changes in nature are mechanical, chemical and organic. Both worked out the relation of the individual to the social whole and both made the state the basis of education; both were creative thinkers and made the trained individual the

social individual; both used the doctrine of plasticity and made the final purpose of life the attainment of The Good.

Monasticism and its fundamental principle, asceticism, were modes of religious and educational life and have a philosophical and educational significance. The ideals of monasticism were chastity, poverty and obedience and its function was moral and religious development. The seven liberal arts, grammar, rhetoric, dialectic, arithmetic, geometry, music and astronomy had their origin in monasticism. Intimately connected with monasticism is that doctrine of life which strives to attain the perfection of the soul, spiritual satisfaction, and is known as mysticism. Speaking philosophically mysticism has been defined as the filling of the consciousness with content and attempts to understand the ultimate nature of things. Mysticism was coeval with Neo-Platonism and was formulated by Plotinus after he had made a thorough study of Plato and Aristotle. His philosophy embraced what is known as the Seven Realms: God, Cosmic, mind, the soul, reason, vitality and matter. The Plotinic philosophy is religious, ethical and practical and has for its end the contemplative life. Since the soul is impassible its nature is not changed by living in the flesh but some of its impediments to growth and development are anger, cupidity, gluttony, intemperance and avarice. Some of the goods to be attained by the soul are just habits, temperance, modesty, calmness and divinity of mind. For Plotinus ecstatic unity with deity is a higher mental activity than ratiocination. He is passionately fond of the beautiful because it is the image of the divine. It has been beautifully said of him, that "for constructive power, inspiring skill, daring boldness, sustained nobility

and imposing beauty, the philosophy of Plotinus has never been excelled." The education growing out of this philosophy puts emphasis upon the super-civic part of man and its whole purpose was to lead mankind to the One.

Mysticism and scholasticism supplement each other but the aim of the latter is to bring reason to the support of faith. While scholasticism was largely theological and philosophical, its educational aim was to systematize knowledge and give it a scientific form. That ideas, concepts and universals constituted the only reality was accepted by the schoolmen and called realism. In opposition to this metaphysical doctrine, nomalism taught that ideals or universals are merely names and that reality is found only in the object. This scholasticism deals with the abstract and immaterial, is a union of theology and philosophy, uses logical analysis and stimulates intellectual interests. It developed an acuteness of thought, a subtlety of reason and led ultimately to the organization of universities. Humanistic education opposed scholasticism, favored physics rather than metaphysics and would teach Roman and Greek literature in order to ascertain what is best in humanity. Humanism not only presented the life of the ancients but also took an interest in aesthetic problems and the problems of nature; it put little stress on the social activity but emphasized the linguistic side of education.

Sense Realism has both a philosophical and educational bearing and teaches that knowledge comes primarily through the senses and that education is chiefly sense training. The realist claims that education is a natural process and that its principles are derived from nature. They taught that the idea should come before the form and the object before the word.

Francis Bacon in his New Organon believed he could point out new paths in science and knowledge and could improve upon the old Aristotelian Organon. He taught that the method of induction was the only correct method of studying facts. According to Aristotle causes are formal, efficient, material and final. Bacon studied only the formal causes for he thought that all that takes place has its ground in the form of things. Induction searches for the form of phenomena which is its abiding essence. It was his idea that discussion should turn from the conception of things, back to the things themselves. He claimed that knowledge is power and would apply the principle of induction to all study. Bacon's philosophy gave education new tendencies and new ideas which have influenced education, established laboratories and put the study of science upon an experimental basis. The Baconian induction has revolutionized education by causing geography, physics, chemistry, zoology and other sciences to be taught by beginning with concrete facts and moving toward general conceptions and laws. In grammar we begin with language and derive rules and principles; and in arithmetic we begin with problems and derive rules.

John Locke was both a philosopher and educator; he wrote an Essay On the Human Understanding and Thoughts Concerning Education. Based upon the Baconian philosophy, he worked out his theory of empiricism that all knowledge comes from sensation and reflection. He considered the human mind a *tabula rasa* and that development is a process of disciplining the mind through study, reflection and meditation. He says a sound mind in a sound body is a short but full description of a happy state in this world, that the all-important thing is the formation

of correct habits and that the business of education is not to make mathematicians but reasonable creatures. Locke may be considered the founder of the naturalistic movement in education which culminated in Rousseau. Both believed in a sound body, in sense training, in nature, rather than in books, in the doctrine of moral consequences and in reason rather in authority.

Rousseau believed that all growth in education and all refinement in life had made man untrue to himself. In the opening sentence in Emile he says, everything is good as it comes from the hand of the author of nature; everything degenerates in the hand of man. If the historical process has led man into wrong paths, he must return from his intellectual pride to his simple natural state of feeling and education should allow the natural endowment of the individual to unfold without restraint. Education is a natural process, is based on natural instincts and interests, is not information but development from within, and is life rather than a preparation for life. Since it is a process, it is not confined to school but to the whole gamut of life. His doctrine is a species of sensationalism; he advised geography to be studied in the woods and fields, and botany to be learned from plants. Pestalozzi's idea of object lessons grew out of the naturalism of Rousseau and has permanently influenced methods of teaching and education in general.

It has been proved again that education grew out of metaphysics and has developed parallel with philosophy. It is also true that modern educational theory and practice is grounded in some philosophical thought and that educational procedure is directed by some philosophical doctrine. It will not be necessary

to discuss all the philsophers who have influenced education, as that would be an endless task, but it will be necessary to study types of philosophical thinkers such as Hegel, Herbart and Froebel.

The Hegelian doctrine teaches that all that is real is rational and that the world is a manifestation of spirit or mind. He would say that the laws of thought are the laws of things and that the secret of mind is the secret of the universe. By means of the dialectical method Hegel determined the essential nature of phenomena by the significance which these phenomena have, as moments in the unfolding of spirit. To comprehend the world as the evolution of the divine mind was the task of Hegel. The thesis, antithesis and synthesis belong to the nature of mind and to the nature of reality which unfolds itself from mind. In his logic he treats being, essence and conception; in nature, mechanics, physics and organics; in the philosophy of spirit, the individual subjective spirit, the objective spirit in morality the state and history; and the absolute spirit, art and religion. In commenting upon this system Falckenberg says, "The absolute or logical idea exists first as a system of ante-mundane concepts, then it descends into the unconscious sphere of nature, awakens to self-consciousness in man, realizes its content in social institutions, in order, finally, in art, in religion, and in science to return to itself enriched and completed."

According to the Hegelian conception the school is an organic spiritual unity. The spiritual unifying principle of the school is a subtle force which not only knits teacher and pupil together but has the power of transforming ths natural pupil into an ideal being. There is an activity in and through the pupil which transmutes him into the realm of law, order and rea-

son, which is his true and better self. The school exhibits spirit as a process of working out through the teacher and subject matter all the potentiality slumbering in the child. The explanation of the school and of all educational processes rest upon the solid rock foundation of cosmic philosophy. The school may be organized out of the spirit of the teacher and the spirit of the pupil, unified and organized by the spirit of the world. As all cosmic processes are the manifestation of reason, so are all school processes a form of some mental activity in the interpretation and application of this reason. As all forms of nature were created by the eternal principle of reason, so are the outer forms of the school derived from this same immanent principle. Neither the school nor the world is material nor mechanical, but both are rational and spiritual. Education is essentially philosophical since it is a study of thought revealed in the universe. Rosenkranz teaches that all education is estrangement and removal. Mind has the power of apprehending itself in its otherness and bringing back to itself what was once estranged. This mind is first absorbed in the objective world, then permeates the world of art and discovers that universal principle which it identifies as its other and true self. In school, in art, in nature, the mind discovers its own essence, penetrates into its own being and identifies its own law in what seems to be an alien existence.

The doctrine of method is one with the doctrine of philosophy; it shows the relation of the objective world to the subjective world. It is a law of the human mind that it parallels in its function the law of the universe. In other words, method may be defined as a real activity of the subject to be studied,

made to harmonize with an ideal activity of a mind to be developed. It is based upon the thought in the thing which is the universal reason manifested in the outer world, and the law in the mind which is the activity or force transmuting ideas and thoughts of subject-matter into the living energy of mind. Subjective method is the activity by which the mind grasps the facts of history, geography and other subjects and makes them a part of its own essence.

The fundamental principle of the educational process and the abiding reality of the world grew out of a common eternal reason which is the substratum of all thought and all things, and is the basis of all civil, social, religious and educational activity. In order to give education a deep significance, its principles must be grounded in a world order and its educational method based on a world movement. Unless the law of the world harmonizes with the law of the school and the law of teaching, knowledge is impossible and education has no foundation upon which to build its superstructure. Furthermore, unless the world is a rational world, science and thinking are impossible, for in order to have thought there must be a thinker behind the world and a thinker who is to comprehend the thought in the world. Since there is a common element in mind and nature, in zoology and in the individual, then education becomes a rational process, and mind is able to find itself both in the outer order and in the inner order. If the world be knowable, if zoology and botany are possible, then nature in a sense is realized mind and the mind finds itself in the order of nature. The meaning of the world series becomes knowledge in the thought series and education becomes a process of the mind building into its own content the significance and meaning of the outer world.

Hegel has given us one of the best interpretations of education by taking it out of the domain of the mechanical, empirical and physiological and making it a spiritual process. He shows that the eternal energy permeating the world manifests itself in nature and in mind and gives us the key for the explanation of the educational process.

Herbart makes the task of philosophy a study of the conceptions of experience by relating the *reals.* These reals are simple, unchangeable and unknowable and the ground which determines all qualities and attributes. The relation between reals is not essential to either but is the origin of things and their relations. The coexistence of the reals is that from which consciousness is reduced. These reals reciprocally disturb each other and cause an inner reactionary disturbance known as self-preservation. Self-preservation is the process by which the unknown real maintains its integrity against other reals and thus forming ideas. Herbart would say we do not know anything about the soul as substance but we do know the soul as a system of self-preservations. In Herbartian metaphysics the soul may be defined as a reciprocal tension of ideas. Consciousness depends upon the degree of intensity and the lowest degree of this tension, in which ideas still exist, is called the threshold of consciousness. If ideas are pressed below the threshold of consciousness, they are called impulses. Herbart's psychology is metaphysical and has been described as a mathematical theory of the mechanism of ideas. He lays great stress upon the assimilation of new ideas by means of old ideas already present and calls the process apperception.

Herbart's contribution to education is first, the application of psychology to education; second,the

emphasis upon the doctrine of apperception; and third, his many-sided interest. He considers the soul a unity whose primary elements are "presentations" and whose interaction leads to concept, judgment and reasoning. These presentations are controlled by the teacher who gathers them from nature and society. The two chief characteristics of Herbart's educational theory are the apperceptive power of mind, and the presentations are to be determined by the teacher. He must select the materials of instruction in accordance with the principle of co-ordination and correlation and make the ultimate purpose of education ethical.

The history of education proves that there has been an intrinsic relationship between philosophy and education, not merely in ancient times, during the origin of the educational concept, but in modern times during the recent formulation of educational theory. Herbart's educational doctrine is based upon his metaphysical theory. Apperception or the assimilation of new ideas by means of old ideas, is fundamental in his system, because it leads to action and action develops character. Herbart says: The one and the whole work of education may be summed up in the concept, morality. "The Aesthetic Presentation of the Universe as the Chief Aim of Education" is perhaps the best treatise written upon the relation between philosophy and education. This book teaches that moral character may be analyzed into inner freedom, efficiency, benevolence, justice and equity and each element has its social counterpart. Moral character is developed by educational instruction and the character of the material is important in the Herbartian educational doctrine. Some would make literature the most important in the devel-

opment of character; others, history: and still others, science.

In order to realize this aim in education a many-sidedness of interest is necessary. An individual is interested (*inter esse*) when he sees the subject is between his present real self and his future ideal self. For Herbart, interest is a mental activity which accompanies apperception. His method of teaching is not based so much upon the character of the material as upon the activity, interest and development of consciousness. The five formal steps are the means by which the end, character, is attained. The truth is, the formal steps mechanizes the mind and is not in harmony with the real process of teaching and learning. It may be a convenient mode of analysis of instruction, but it would perhaps be better to say there are just two factors in the educational process, the thinking mind and the thing to be thought.

Inner unity, inner development and inner connection, the trinity of Froebel's spirit, were the underlying principles of his life and philosophy and the fundamental truths of his educational doctrine. The whole idealistic movement in philosophy attempts to unify the world and human life and teaches the worth of the individual, moral and spiritual culture, the organic conception of society, the self-determining activity of the individual, the world a manifestation of a spiritual principle and the organic unity of nature, mind and the Absolute. Whatever originality we may give to Froebel in his doctrine of education, we must keep in mind the fact that his underlying principles were derived from the preceding systems of philosophy. He had the ability to appropriate, discern and organize the fundamental ideas of the philosophy, literature and science of his day into a new

conception of education. We can understand the educational theory of Froebel and in fact the educational theories of all thinkers only by knowing their philosophy, for we take it for granted that an educational doctrine has no validity unless it is grounded in philosophy. His philosophical principle is *organic unity*, which is eternal and world comprehensive. It is inherent in his very constitution of mind, and caused him to unify things and organize the manifold forms of existence into a unitary conception. The great thinkers of the world have been *unifiers* and Kant, the prince of thinkers and unifiers, believed that man's world is what he constructs it to be in his own consciousness, and the only nature he understands is the nature he builds up in his own intelligence.

Froebel looks upon both nature and the human spirit as manifestations of an eternal principle which has its origin in the Absolute. It is the special function of man as a rational being, to become fully conscious of the divine effulgence in him, and to work out his own educational freedom through his own self-activity. He believed the soul is self-acting and self-determining because it is one with the self-acting and self-determining things of the world. He says that nature develops by inner laws and that these inner laws have a teleological significance. He applies this principle to both natural and spiritual processes, to the plant, the individual, society and education and the creator whose method is operative in the world.

The educational problem of Froebel is to adjust the individual to the larger social life in which he lives. In order to do this, it is necessary to know man's place in the world and know the relation between the human process and the cosmic process. In order to

solve this problem we must understand that human life and education are possible and intelligible only on the assumption that both the self and the world have their origin and development in the persistent purpose of one universal spiritual principle. Only on the basis of such a kinship is it possible to render an account of the education of the human individual. According to this principle, reality is an organic spiritual unity and education is based upon the fact that there is a vital relationship between the activities of the individual and the activities of the outer world. In the opening sentence of the Education of Man Froebel says, "In all things there lives and reigns an eternal law." This law is the controlling factor in education, in life, and causes us to imitate the eternal ideal through our own self-activity and self-determination. It should be the function of education to make the external internal and the internal external in and through a principle resident in both. Froebel tells us that the only aim of education is to nurse the divinity in us, and to see that we are related to the world through a common bond of connection. It is the final purpose of man to understand the inner connection of things and relate this inner unity in nature to the inner development of man. In speaking of his law of development he says, "I see the simple course of development progressing from analysis to synthesis which I find in pure thought and which I consider the type and law of all development." Inner unity, inner connection and self-activity are fundamental, philosophical and educational principles and lie at the basis of any rational theory of education.

II.

PHILOSOPHICAL SIGNIFICANCE and IMPLICATIONS of (*a*) *EDUCATIONAL FACTS* and (*b*) *BASAL CONCEPTS IN EDUCATION.*

By appealing to experience we learn that a number of marks or characteristics in education come together and we, therefore, decide that they intrinsically belong together. We further find by such an inductive study that there are many coincidents of these marks in educational facts and we conclude that they form a fixed group which belong together since they so often come together. These basal concepts which unify the facts of education are themselves marks of a deeper unity to be found not only in education but also in the world itself. An inductive study will first be made of the educational facts in order to ascertain to what fundamental concepts such an investigation may lead and lastly, these basal concepts will be studied to find out what unitary principle they depend upon.

(1) *TEACHING* and *LEARNING:*

By the actual observation of the activities of the school, a process of teaching and a process of learning are found to exist in interrelation. It is the function of teaching to present conditions for growth and development. Teaching is a process of causing the pupil to know the object by bringing it into unity

with the subject or by causing the subject to be realized in and through the object. In teaching literature or history there is a fusion of the mind of the pupil with the thought of the lesson to the end of mental and moral growth. In Emersonian terms there is no teaching until the pupil is brought into the same state of thought as the teacher and the subject matter of the lesson to be learned. Whatever is the thought of the teacher or the thought of the lesson may become transfused into the life of the pupil by a process of teaching. Teaching is a process of building into the mind of the pupil the thought and spirit of the world. In teaching we notice that the teacher's mind is directed to the mind of the pupil, while the pupil's mind is directed to the thought of the lesson. The teacher in teaching history must know both the nature of history and the movement of the mind in tracing the history process. The teacher in teaching history or any other subject must resolve it into its mental processes and must understand clearly how these spiritual elements are to become a part of the mind.

We observe that teaching and intelligence come together we, therefore, conclude that they belong together and that this belonging together is not a chance conjunction of experience but a rational connection. Many things in teaching occur together, as the noise of the street car or the whiteness of the school room, but there is no inner connection or fixed order of belonging together. Since teaching and mind are always associated together in the same connection we decide there is a causal relationship existing between them and the presence of one factor always implies the presence of the other.

The starting point in this thesis is the particular

educational facts, and none are more self-evident than learning or "get your lessons." There are at least four types of learning activity: chance learning, learning by trial and error, learning by imitation and reflective learning. Chance learning is an adaptation to some accidental performance and is really a random response. The child's activities bring about new and useful reactions and he is said to learn. In learning by trial and error the form of reaction is blind. While there was no aim in chance learning, there is present by learning by trial and error a definite purpose to be realized. We do not know how to solve the problem, however, but the end is reached through selective consciousness. In learning by imitation the idea, habit or model must be present for the individual to copy. The imitation will be in proportion to the definiteness of the model. Social life is really the basis or model of all imitation. Imitation plays a great part in learning and right models of physical, mental and moral habits should be kept constantly before the student. The fourth type of learning is by means of reflection. In trial and error and in imitation we may try and try again but in reflection we analyze the situation and ascertain the thought to be obtained.

In reflective learning the mind identifies itself with the thought and spirit of the world other than itself. It is a constant process of striving after the truth of nature and points to the unity of the world. The movement of the mind in teaching a subject is intimately related to the mind in learning it. The teacher in teaching follows the thought of the pupil while the pupil in learning follows the thought of the lesson. To learn a thing is to transmute the thought in the thing into the thinking mind. The child learns the lesson in history by transforming the thought,

feeling and volition of the lesson into his own spiritual nature. Learning presupposes an intelligence at both ends of the series; and intelligence in the lesson and an intelligence in the individual learning the lesson. It involves a knowable world, a knowing mind and an identification of the thought of the world with human thought. Learning takes for granted that there is an immanent reason in the world and that there is intelligence in human beings which can grasp this reason.

We notice a repeated coincidence of intelligence and learning and we, therefore, infer that they belong together in a rational way. The radiators and erasers are usually seen in connection with the learning process but since there is no causal relation or sequence existing between them, they do not rationally belong together. The connections must not be accidental conjunctions, but must have a rational relationship. To know what things are for, and how they are brought together, we must appeal to the mind which is the final principle in education. Since intelligence is a mark or characteristic of learning and is found wherever learning exists we are inevitably led to the conclusion of a mental unity of teaching, learning and intelligence and that a further analysis will reveal some spiritual energy underlying not only these principles but the world itself. So closely connected are these three elements of education that they all seem to have a common origin. Their uniformity seems to indicate that the mind of man, the processes of education and the course of nature have a common genesis.

(1) MIND:

We have found by observation and explanation that both teaching and learning inevitably lead to a mind principle for their origin. This intelligence must fur-

ther be studied in the concrete situations of education in order to ascertain to what final principle it owes its origin. It is impossible to conceive of a teacher, pupil or school without taking into consideration the mind for which the whole scheme is organized. By observing the prime importance which intelligence plays in educational work, we conclude that it is the chief educational category.

The teacher deals in the actual school with both the physical and mental child. It is not the aim of education to make a better animal out of the child so much as to make a better moral and spiritual being. However, the teacher deals with both sides of the child's nature but does not understand the relationship between body and mind. This concrete illustration leads us to the Cartesian conception of mind which distinguishes consciousness from matter, or the thinking thing, *res cogitans*, from the extended thing, *res extensa*. There is a sharp demarkation between mind and matter and neither is supposed to have any functional relation with the other. In this connection Tyndall says, The passage from the physics of the learner to the corresponding facts of consciousness is unthinkable. Huxley says, I never hope to know anything of the steps from the molecular movement to the states of consciousness. Neither of these great scientists is able to solve the problem of the relation of mind to body. However, the teacher deals with both phases of life and should know something at least of their interaction. The occasionalist would unify mind and body to the intervention of deity. In other words the relation between mind and body is controlled by the supreme being. Since this theory was not satisfactory, Liebnitz tried to solve the problem by the doctrine of pre-established harmony.

Modern psycho-physical parallelism has expressed this connection by saying the relation between sensation and perception is as the logarithm of the stimulus.

In making an inductive study of the mind we will next discuss the functional view which makes thinking a form of activity which we perform to attain certain ends. When a child desires something he performs certain activities in order to obtain it. The mind is in and through its activities and is what it is because of the many functional relations in which it has been found. The child perceives when it is necessary to perceive and reflects when an occasion demands reflection. The reflective process arises from specific relations and serves specific purposes. The functional view of the mind teaches that experience is dynamic, a process, active, and that activity is the self in functional relation to its environments. According to this view of the mind the curriculum should be made up of those responses which will be most useful in life.

These explanations and views of the mind do not get at what is essential in its nature; namely, the abiding, thinking, unitary self. By observation we might think with Hume that the mind is made up of units of sensation, feeling and impression. But the truth is it is impossible to build up mind by associating impressions and thereby forming judments, for to judge implies unity and identity of the thinking self and some connection between thought itself. If we had two states of consciousness, ink and black, we cannot form a judgment unless we have an abiding self which is neither ink nor black, but which embraces both in the unity of its nature. Since the thinking self is necessary in the formation of a judgment, we conclude that all impressions or states of consciousness to mean

anything to intelligence, must be due to the constitutive, organizing, classifying, unitary self. These conclusions destroy Locke's *tabula rasa*, for there is no mental substance upon which impressions are to be stamped. If we accept the maxim that, "Every psychosis has its neurosis," we are led to materialism which in another form would say that the mind secretes thought as the liver secretes bile. This theory is untenable as we have proved that learning and educating are spiritual processes.

The self is another name for the mind and is the presupposition of every process in education. It is the bearer of experience, it does not have activity but is activity, it knows things, it apprehends facts, it connects objects, and holds them together and is what Browning calls, "what knows, what does, what is." It is the abode of ideas and purposes and the subject of all conscious experience. By studying the child's activities we may analyze the self into a knowing self, a doing self and a social self. These are the constituent elements of a "person" who is a conscious subject capable of distinguishing himself from what he knows and the ends which he attains. The self is not substance but activity in doing, thinking and feeling. By analyzing the world and analyzing the self we come to the conclusion that they are terminal aspects of a unitary process. The idea of self includes a consciousness of the not-self, and every living individual is related to every other individual through some principle which binds mankind into a unit.

Professor Royce states that the self is the conscious and intentional fulfilment of the divine purpose. The self plans experiences but realizes its true nature only in God; the self experiences what the divine

plan indicates. Thomas Hill Green makes the self-conditioning and self-distinguishing consciousness a form of the eternal consciousness. He says that this divine eternal spirit contains all the human spirit may become. According to Green spirit is self-distinguishing, self-combining and self-objectifying. It conceives phenomena under the categories of unity, likeness, difference, etc, and when it reflects upon its own nature it employs the same categories. According to this metaphysical doctrine, self-conscious personality is based upon supreme personality. Green says that our conception of an order of nature and the relations which form that order, have a common spiritual source.

He would further have us believe that nature is a system of related appearances and related appearances are impossible without the action of intelligence. The organizing principle of the world is, therefore, the unifying, self-distinguishing, combining self, and Kant is correct in saying that the understanding makes nature. The individual self is but the manifestation of the eternal self and the cosmical and educational unity is thus attained. The essential nature of education, teaching, learning and the mind itself can be traced to their ultimate source in the eternal consciousness. We do not posit an immanent universal mind but by careful analysis and induction of the activities of teaching, learning and mind, we are inevitably led to that conclusion. The absolute spirit is the most fundamental principle in education for it unites all the educational forces and factors into one living whole. The child's mind which is taught history, grammar and arithmetic in school may be gradually traced back until we arrive at this supreme principle of philosophy and education. A metaphysics of education

is possible only by deriving an unitary world principle which unites subject and object, mind and body into one organic whole. Every process in education, teaching, learning and mind activity has its source in the Eternal Reason which is the underlying substratum of all existence. Professor Paulsen tells us that physical processes are always accompanied by psychical processes and wherever you find matter, you find some form of mind. According to a leading scientist the tiny cell is an embodied bit of mind. He says, "The life of a cell consists solely of its mental activities." We are brought by the force of such argument to the conclusion that every process in the world and every process in education have for their sustaining activity the immanent universal mind from which all things have their source.

We can only reach an adequate idea of the self or soul by connecting it with the primal ground out of which it originates. The primal ground of the self, the world and education is the self-activity of the absolute. This activity changing from potence to actuality constitutes the ground of all things and since this outgo is accomplished by evolution rather than creation, the self gradually passes from mechanism, instinct and impulse to the highest form of spiritual activity. The movement of the soul's activity corresponds to the movement of the absolute spirit but never so completely realized. The vital principle which we find in vegetable life cannot be called soul but we are led to believe that unitary force which determines existence of organic life is the same spiritual potence which is manifested in soul-energy. We may study plant life and the lower form of animal life and also human life, but we cannot conceive how through naturalistic evolution the soul or self is originated unless it is grounded in a spiritual activity.

No metaphysics of education is possible unless the facts of education can be traced to some eternal source which has its origin in the spiritual energy of the absolute. In teaching and learning, the self is changed from potence to actuality and the supreme purpose of all educational work is to quicken the spirit. Since the nature of the human spirit is identical with the nature of the eternal spirit, and since, as Miss Calkins indicates, the human spirit sees, hears, thinks, then the divine spirit must have these same attributes. Education tries to bridge the gap of existence between the human and divine and shows the unity and continuity of the world. A metaphysics of education ought to show the rational relationship among all educational facts and trace the varied and complex activities of the school back to first principles. Such a unitary view of education should give the teacher renewed interests in the concrete duties of his work by relating the activities of the school to activities of the world.

(2) *STUDY AND THE RECITATION*

In observing a school, two of the principal facts of education are the study period and the recitation period. In educational work we study in order that we may recite and the purpose of both study and the recitation is to grasp the *meaning* of the subject-matter in hand. In analyzing the study process we find that it is made up of several factors. No one studies unless he has a purpose either immediate or remote, specific or general. He may study to please the teacher, to excel in the recitation, or to attain some unrealized end which he has set up as his life's goal. To have a specific purpose in study is to add interest, to organize facts, and to provide for a practical out-come of the

knowledge obtained. When a student studies a subject, as geography or history, he notes what the author says and then supplements this out of the fund of his own knowledge and experience. To study is also to organize facts by some method of co-ordination and subordination. The real student soon learns that knowledge moves in groups, in plateaus, and not in isolated facts. The experimental studies of Bryan and Herter prove that the knowledge process is made up of peaks and valleys.

Knowledge may be organized on a psychological basis—related to man, on a scientific basis—not related to man and on a logical basis—on the laws of thought. Such an organization leads to thoroughness and assists the student in distinguishing the important from the unimportant facts. Studying is a process of classifying and judging the relative value of subjects and also the ultimate or life values of facts acquired. By many to study is to memorize and memory is intimately related to thinking. The problem of "Formal Discipline" may be solved by making memory a process of thinking and noting the thought relations connecting subject matter. Studying is a memorizing process plus the process of seeing relations. Another factor in study is the use of the ideas attained in practical, intellectual and social life. We must grasp the meaning of the subjects studied and make it a part of our functioning life and a mental habit. We may enumerate another element in study and that is the tentative or scientific attitude toward knowledge. As much knowledge is not fixed, we should be slow to accept facts simply because they are printed in a book. Reason should be placed above authority and our attitude should be to accept all reasonable knowledge and be open to illumination on all subjects. To study

is to gain all the knowledge, meaning and significance possible, and then use our own individuality in supplementing what we have studied.

The total function of studying is to obtain the meaning and unity of the world and to use this meaning in enlarging our lives. By a careful analysis of the study process we observe that study leads to meaning and meaning presupposes study. This relationship is not a chance conjunction but a rational connection. These actual connections are noticed in the daily recitation and furthermore they not only come together but vary together. The more study the more meaning and the less study the less meaning seems to be the law of variation. Since meaning and study come together, vary together, they then logically belong together and the inductive conclusion is that study inevitably leads to the meaning or significance of the thing studied. The regularity or frequency of coincidence of marks compel us to believe that there is some causal relationship or uniformity of sequence existing between the two factors. If study leads to meaning in history, meaning in literature and meaning in other subjects we conclude that it is the law of study to be followed by meaning. The canons of inductive thinking are agreement, difference, residues and concomitant variation. Our process of reasoning in regard to study and meaning uses the first and last canon in proof of the generalization that meaning follows study. Mills says that if two instances have one circumstance in common that circumstance may be regarded as the cause. By observation, by experiment and by hypothesis we notice that meaning is common to the lesson, common to study and the final purpose of both the recitation and study.

The recitation is an educational fact found in all school work and consists in the pupils restating the thought and meaning of the lesson to the class and the teacher. Studying in school work has for its aim, reciting the thought, meaning or significance to the class in such a way as to clinch the facts. In the recitation the teacher and pupils discuss the thoughts of the lesson and if some ideas are not clear the teacher assists in working out the true meaning of the subject studied. The purposes of the recitation are, to excite interest in study, to train in correct methods of study, to find out how much the pupil knows, to explain, to approve and criticize, and to stimulate and inspire pupils to higher ideals of life. A perfect recitation is one in which the pupils grasp the *meaning* of the lesson in toto, and present it to the class in a beautiful and attractive manner. The recitation is the heart-beat of the school, as all the forces in the educational system are centered in the recitation hour. The recitation to become a work of art should be the free expression of the thought and meaning of the lesson by reducing to a minimum the mechanical phase of the school. For a recitation to be perfect and beautiful the spiritual forces should not be controlled by the mechanism but should move freely and in an inspiring manner.

The thought and meaning with which the recitation deals are the molds which the mind makes of objective existence. Unless the laws of thought are valid for the laws of things, knowledge and meaning are impossible. Things do not make thought so much as the living, personal spirit makes things epistemologically. Thought and things are identical in the sense of the contents of the thing being one with the thought of the thing. Human thought and the cosmic thing

are rooted in a common unitary process, if thought can know things and hence the recitation which seeks the unity of the world is based on an idealistic monism. If the objective order to be known and interpreted does not have a nature similar to mind then the recitation has no function to perform.

(2) MEANING:

Organically related with the study period and recitation period is meaning or what the mind knows about things or what is transmuted into the mind from the printed page, painting or outer nature. In looking at the page, painting or scene of nature, there is first a sense impression, but meaning can be secured only through thought. This meaning which we get from literature, art and nature is built up in the mind and so the thing world has no meaning except what is constructed in the inner consciousness. Since the understanding makes nature the thing world is nothing more than a complex system of relations constructed by the mind. The world we know is the world of intelligence and the thing world is commensurable with the thought world and both are grounded in a universal reason. We arrive then by a study of the facts of meaning to the basic essence which unifies and organizes the multiplicity and complexity of objective existence into an organic whole. To illustrate the value of intelligence in education let us make a brief study of language and literature. The writer recently received a Hebrew letter which contained meaning and thought couched in a peculiar form of writing and which meant nothing although it was carefully observed by the senses. The intelligence of the Hebrew put meaning into the hieroglyphics, and what the senses failed to understand,

the intellect of the interpreter made clear and plain the meaning contained therein. The Grand Opera, Aida, is merely sound to the dog or the savage, but becomes charged with intense meaning when interpreted by a cultivated musical mind. Language, literature and the Hebrew letter must have intelligence at both ends of the series, intelligence in the language and intelligence in the thinker who interprets the language. We notice that little meaning is found in the sense fact, but the larger meaning is found in the world of intelligence. If this inductive reasoning be correct we cannot interpret language unless there is a thinker in language and a thinker who thinks language.

Knowledge which is intimately connected with study and meaning is an important factor in education. It is not something ready made which is put into a passive mind but is constructed in the mind by its own inherent energy. To know a thing is to grasp the meaning, to form its thoughts, to seize its contents and Kant is correct in saying all knowledge is due to the activity of mind; however, Kant's dualism of sense and understanding has been replaced by modern thinkers by a basal monism, for knowledge can have no validity unless it is based upon a theistic hypothesis. Free intelligence in the world (and free intelligence in the knower) is the only solution of the problem of knowledge. Also the only solution of the problem of study and meaning is to assume a universal reason which is the connective bond between the world of thought and the world of reality. The finite subject and the cosmic object must find their unity in an absolute intelligence or will. Since the world is the thought of God made objective, a thinking intelligence is able to grasp this thought so far as finite intelligence *approaches* infinite intelligence.

Since meaning in school work implies retrospectively, study and the recitation, it also implies prospectively an intelligence in the objective order which is the all-embracing unity and identity of mentality and objective reality. In study we find meaning; in the recitation, we find meaning; in the world, we find meaning, in all things; we, therefore, conclude that intelligence is a *mark* of education and a *mark* of the eternal principle of the world and has its source in the supreme intelligence which is the foundation of all existence, physical and psychological. As these educational facts come together so frequently, the inference is drawn that they belong together and have a common genesis. The relation between meaning, study and the recitation is not a chance coincidence, not a mere conjunction of experience, but a rational "belonging together" which is a surplusage determined by the mind itself. We also see that none of these have any validity unless they are grounded in a spiritual potence and, therefore, the actual concrete facts of education are controlled and given vitality by referring them to a Supreme Reason.

(3) SCHOOL MANAGEMENT:

School management is one of the essential elements in education and may be discussed from the authoritative standpoint or from the self-governing plan or idea. According to the former method children are governed by external authority and are supposed to conform to rules laid down by superior persons in control. This method crushes the intellectual and moral life out of the children and is not in harmony with reason or the rational order of things. The true idea of school management is to change the pupil's caprice into rational order and cause him to realize

that the school is the objectification of the eternal reason and that his actions are free when control arises within the individual and when his reason is made to harmonize with the reason of the school and the rationality of the world. The law and order of the school correspond to the rational order of the universe. The individual pupil loses his life in the school in order that he may gain the larger life found in education. The law of the school becomes the law of the pupil in and through the law of the world. The school is born in intelligence which is the deepest principle of nature and human nature and which is the unifying force in all school government. By means of school management the pupil is taught to unify his life with the life of eternal consciousness which is his other and better self. This plan of action or mode of procedure originates in the divine plan and when the pupil conforms to this divine order he realizes his true worth and destiny. True management is self-management, and this can be realized only when the pupil understands that his nature and the rational order of the school are terminal aspects of the eternal reason and that when he harmonizes himself with the management of the school he is obeying his better nature. The pupil then responds to the inherent laws of his own nature, attains his highest perfection by having his life to throb with the universal life of the world.

(3) IDEA:

If an idea is a plan of action(Royce), it is an organizing process, it synthesizes experience, it controls and molds facts, it guides life and it is the fundamental tendency to behavior. Education is a process of gaining ideas in history, literature and other subjects

and transmitting them from generation to generation. Some ideas are so powerful that they take hold of us and possess us and fix the tenor of our educational, social and moral life. Ideas are living, growing, expanding and are brought to consciousness by thinking. They summarize experience, are dynamic, are the forms of conduct and are ideas only so far as they express themselves in fitting action. Plato used the term idea to express the real form of the intelligent world. The Cartesian idea is extended to objects of our consciousness. According to Locke an idea is what we get when we think an object. In thinking we deal in ideas and place them in rational sequence.

Since ideas control, inspire and guide action and illuminate the path of life and are intimately related to school management, and since an idea looks to both the future and the past, it is prospective and retrospective. In order to make our ideas clear we think them over, put them under the law of definition and under the law of rational relations of things.

In its deepest meaning an *idea* is the underlying principle of all things. In the Hegelian conception the world is an IDEA revealing itself in objectivity; it is the source and ground of all that is. The absolute idea is a form of self-consciousness and is the eternal reason of the world. Therefore, the ideas with which the teacher deals in the actual work of the school room, that are transmitted from generation to generation, and that are the controlling factors of school management, have their ultimate genesis in the self-conscious reason which in its terminal aspects may be called in this paragraph *the guide to conduct and the plan to action.*

(4) THE PROBLEM OF METHOD:

In observing the method of teaching in different

schools, some teachers lecture, some require the pupils to lecture and others use the Socratic, developing or other methods. Some teachers think method a mere device, while others consider method as a real activity harmonizing with an ideal activity. According to this conception of method there is a law in the mind and a law in things and real method is a delicate adjustment of the two. There is an objective method creating subject matter and a subjective method transmuting subject matter into mind.

The Objective Method is the universal principle pervading all existence, producing all phases of activity and determining all forms of method. In studying the flora and fauna of a country we can determine experimentally that they have been produced by different forms of activity. Method in botany investigates the activities of plant life, and method in zoology, the activities in animal life. The scientist and philosopher both tell us that what is, is activity and, therefore, method is a type of activity. There is a certain activity in the universe which produced Saturn's rings and another form of activity which created the rocks. Method in astronomy intestigates the first form of activity and method in mineralogy studies the other form of activity. In studying "The Chambered Nautilus" we are tracing the activity of the mind of Holmes as he traces the natural activity in the nautilus and in studying the first steamboat we are tracing the mind of Fulton. Method in literature investigates the thought in the poem and method in history makes a study of the activities of The Clermont.

The Subjective Method is the activity or force which transmutes the ideas and thoughts of the sub-

ject studied into the thinking mind. The teacher must know the psychology of the subject, but in order to teach well he must also be able to adapt the subject matter to the child's mind before him. In learning a thing the mind's activity must harmonize with the activity of the thing and method merely explains the mysterious unity between subject and object. Method as thus discussed is rather Cartesian in nature but to attain a true conception of method this dualism must be substituted by a monistic spiritualism. The dualism which is seen so concretely in actual teaching must be healed by a basal monism which unites subject and object into an organism of knowledge. In other words the thought in the thing must be translated into the substance of the mind in order that teaching may attain a high degree of efficiency.

The problem of method is one with the problem of philosophy—to show the relation between the activities of the objective order and the activities of the subjective order. It is the nature of the human mind as seen in teaching and in educating to parallel the activities of the objective order. When the thought and reason of the world return to the mind through its own activities, the mysterious unity is obtained by cancelling subject and object and returning to the eternal reason which is the origin, not only of the outer world but of all the activities connected with education. The objective method and the subjective method are terminal aspects of an eternal consciousness and, therefore, the estrangement in subject and object must be overcome through method. The teacher in teaching plant life must restore to the human mind that which was estranged from the genesis of things and hence the ground principle in all

method of teaching must have its source in the absolute. Objective method and subjective method are different phases of the absolute activity. In other words the eternal reason manifests itself in the mental activities of the child and in the cosmic activities of the world and the supreme problem of the teacher is to unite these two estranged forms of activity and thus heal the original wound of nature.

(4) Experience:

The quality of subject and object is the first essential of experience as it is the first essential of method. There is an outer sensuous side of experience and an inner psychical side. Experience like method is a process rather than a product and is due not so much to sense impressions as to thought activity. The starting point of experience and induction is the sense world but the fact things not only come together but hang together. This is the work of the mind.

The what of experience is illustrated by the mathematical, physical and chemical sciences, while the how of experience or the mode of experiencing is illustrated by the psychological sciences. Experience is not merely the what and the how but it involves also a relationship between a thing and a person. It is the aim of formal education to modify and transmit experience and this modification takes place in the person and in the thing. The concept of education and experience lie close together for we may say education is experience or experience is education. Experience has its content side and its form side or its subject-matter and its method. It may be defined as a modification of the agent and includes both active and passive factors. We learn new experience

by means of old experience and when we become conscious of experience we have a method of regulating it.

Education may be defined as any intentional modification of the one who has experience with a view to securing more desirable and avoiding less desirable forms of experience. In education there is one factor which is not experience and that is the intentional modification which the experience has in influencing future experience. We may say that any one capable of experience is capable of education. Any being that cannot be trained cannot be modified to change future experience. Training may be defined as a modification of future experience where education implies a capability of becoming conscious of the experiencing process. If a being can see or foresee that one type of experience is better than another, then we get education in the human sense.

A glove is modified by experience and this modification affects its future use, but since it does not have consciousness it does not in reality have experience, for experience may be defined as a kind of stretched out form of consciousness. Since education is an intentional modification of experience, the teacher who has a larger experience is able to guide the pupil because he can foresee better future consequences of experience. The teacher who has greater experience knows what kind of a demand to make upon the children who have less experience. In education children gradually become conscious of future experience but are not conscious operators of experience. To attain experience the child must have a capacity and a function for experience. We usually think of experience as something that comes to us or something that happens to us, but in reality the senses and atten-

tion are selective agencies for gathering experience. Experience may be called a *dunamis* of habit and an *energeia* of attention. As in method, the agent and the situation are terminal aspects of the experience process. Education has been defined as a reconstruction of experience in order to give it a more socialized value. In fact the essence of the educational process is the transmission of experience from the mature to the immature.

Experience has both a pragmatic and idealistic value. It is the task of philosophy to trace in experience, in the human mind, and in education, an immanent reason upon which both education and experience depend. It is through experience that spirit realizes itself and the experience pupils gain in studying the various branches of knowledge, is a method of uniting the estranged intelligence to its original source. Since the categories of nature harmonize with the categories of thinking, nature is organic to thinking and intelligence, and exists only in the life of the spirit. That unity which unites subject and object, pupil and experience, intelligence and the world is the absolute Activity.

(5) UNIVERSAL EDUCATION:

Universal education is a recognition by all people of the world that every child shall be educated not so much from the standpoint of economic and commercial success in life. nor because it is a fundamental governmental principle of self-protection and self-preservation, but because it is an inherent principle in the very nature of mind itself in that it seeks to realize itself in and through the instrumentalities of education. Why should every mundane being be educated? Why should education be universal? There is a

tendency in nature, in plant and animal life and in human existence to strive for the highest good. Universal education has its explanation and roots in a self-realizing universe. There is an energy in the world which is seeking its highest perfection and which requires universal education as a means to the attainment of this ultimate aim. That every individual in the world should be educated may be explained from the fact, that in man and in the world there is a spiritual principle seeking for perfection, which can be realized only by the terminal aspects of this universal reason recognizing each other, and the higher the development of mind the greater the unity of these estranged processes. Since the world of change and becoming must be grounded in a first principle to explain the fact of one of the terminal aspects of the world, so universal education to explain the other terminal aspect of the world, and that an organic unity of these can only be realized when the human spirit can see itself and attain itself in the otherness of the world. There is an evolution of nature and an evolution of mind and in order to show that they are different aspects of one eternal process, every human being must be educated in order that every child of mankind may know every process in nature and in order that the spiritual unity and continuity of the world may be maintained. Universal education is to evolution, as universal history is to the race, "A progress in the consciousness of freedom."

(5) Evolution:

Evolution is a fundamental fact of education and while it was originally applied to the facts of biology, it is now applied to the facts of education, sociology,

institutions and creeds. Education is now conceived as dynamic, a process, a change, a becoming, and the changes that are going on in the world are not aimless but intelligible and there is also a continuity of existence and a oneness of all things in spite of their difference. The fact that every life is related to every other life, and that there is a unity in the world, can be explained only by presupposing an eternal energy of the world which is constantly changing through the process of evolution into higher and higher forms. The processes that we see taking place in school work may be described in the language of Leconte, "As a continuous progressive change according to certain laws and by means of resident forces." The evolutionary process that takes place in education is the gradual development of the living, self-determining spirit which Spencer says, is not distinguished from that power manifested throughout the universe. In Huxley we find about the same statement: namely, "'In man there lies a fund of energy operating intelligently and so far akin to that which pervades the universe, that it is competent to influence and modify the cosmic process." According to the evolutionary hypothesis the mind is as it acts and the more it acts the more it is. If we consider the mind a product of divine nature then the mental and spiritual facts of life must be explained as an effulgence from the divine spirit. The changes that take place in education and in mind may be mechanical or spiritual. According to mechanical evolution mind was evolved by means of spontaneous generation out of the non-mental and that it has constantly been developed into higher and higher forms of activity. But since spontaneous generation has been proved to be false and since it is impossible

at any stage of the world series for the mental to be derived from the non-mental, naturalistic evolution must be superceded by a spiritualistic evolution which grounds the world in a spiritual potence and evolution is a gradual unfolding of this ultimate creative energy. As Tyndall says, It is impossible to explain consciousness by means of nervous matter, then naturalistic evolution cannot explain the genesis of mind unless that evolution first posit a universal reason. If this ultimate principle be denied, then evolution is powerless in explaining the processes of education and the world.

It is impossible by any theory of naturalistic evolution to explain the spiritual principle of the school. By a concrete study of the school we ascertain that its essential nature is not in the desk nor in the blackboard but in the organic spiritual unity composing the school. The mechanical changes that take place in the school must give way to a rational and purposive explanation which would consider the school as a phase of the evolution of the eternal consciousness. It is seen again and again that any fundamental explanation of the school would lead us into a profound explanation of the world process itself and neither has any meaning unless grounded in a First Cause. When this unitary power functions, a living organism is created and its development takes place through processes of naturalistic evolution.

As education implies change and as education is in proportion to the change and since wherever one is found the other exists, we therefore, decide that these two fundamentals belong together. The mind assumes that a continued coincidence of marks and characteristics is the sign of a law of existence and that these two elements rationally belong together. It is by means of law that mind can pass from evolution and

education to the true universal which embodies all particulars and which is the informing life of all cosmic processes and all concrete processes in the school. Mill says, If two or more instances (education and evolution) have one circumstance in common (universal reason) that circumstance may be regarded as the cause of the series.

(6) THE SCHOOL:

To make an inductive study of the school we note that it is made up of teacher and pupils as essential factors and the school house, apparatus, etc., as the non-essential. The facts of the school are school yard, school house, books, desks teacher, pupil, tuition, trustee, curriculum, recitation. gradation, government, etc. These are the factors making up the objective school and since they are found to exist in all schools we infer that their existence is due to an inner law. The human mind is not satisfied with these facts of the school but seeks to understand the philosophical significance and implications of these facts. In carefully studying these school facts we notice that some are more essential than others. We could eliminate the blackboard or even the school-house and still have a school, but if the teacher or pupil does not exist in co-operative relationship then there is no school. On further analysis it will be noticed that the school is not the teacher nor the pupil but their organic spiritual unity. In fact the school-essence is found in that force, energy or activity which binds teacher and pupil together. Since force is the root idea of law then law is the ultimate principle of the school.

Mill makes the statement that if we subtract from phenomena such a part as is known to be the

effect of certain antecedents, the residue is the effect of the remaining antecedent. The residue of the multiplicity of school factors is the spiritual energy which binds the essential factors together into a bond of unity and, therefore, this residue or law is the source of the institution called the school. In induction we universalize perceived relations or connections between the factors of the school and discover the final cause of the school's existence, and designate this cause as the eternal consciousness from which all educational facts are derived. Were we not certain of this ultimate principle, even a guess which serves to give mental unity and wholeness to a class of scattered particulars, would lead us inevitably to a world principle or to a universal reason.

(6) Law:

The scientist studies and classifies phenomena in order that he may arrive at their law. The pedagogical student studies the facts and phenomena of the school in order to ascertain its law. It was first thought that every fact in the world was isolated and that there is no connection between phenomena. A deeper study of the facts of nature lead us to the conclusion that every fact in the world is related to every other fact, and that the facts of education are bound together like the facts of nature by means of law.

When we study the animal and vegetable world we find that there are certain facts which occur according to a definite rule. This order of sequence of phenomena seems to be uniform and constant. The apple tree puts forth its leaves every springtime. This uniformity in vegetable life and the uniformity Kepler ascertained to exist in the solar system are called

law. The most elementary form of law is this uniformity of nature, but the mind constantly seeks a force or explanation of this observed order of facts. The mind in studying the uniformities in nature—that oranges are yellow—that every genus tends to produce its species, is not satisfied with mere uniformity and sequence, but seeks a cause or force which produces this intelligent order. In fact the mind is not content in knowing that there is a force but tries to understand the law and nature of this force. We do not wish to know merely that there is a force called gravity which tends to draw all objects to the centre of the earth, but we desire to know it in mathematical and physical measurement. We should not only understand the three laws of Kepler in regard to the densities, velocities and orbits of planets, but we should also study the universal law of gravitation by means of which these forces are measured.

We notice the tree puts forth its leaves every year and that a teacher and pupil constitute a school, but we cannot think that nature and the school are mechanical processes but are inclined to believe that they have a supreme purpose or function to fulfil. The tree puts forth its leaves in order to perpetuate its species and the school exists in order that the human mind may attain its freedom. Science may give us a knowledge of the external world, but metaphysics proves that purpose and law rule the world. In metaphysics we pass from the seen to the unseen, from sense to reason and from fact to principle. When the mind penetrates the phenomenal world it finds there an invisible energy seeking to realize itself through the phenomenal order. This energy or invisible principle is called law. Haeckel teaches that energy is spiritual and, therefore, when the mind

studies the objective order of existence it finds itself, unifies itself with intelligence which seems to be the source of things. We are told that things seen are temporal, while things not seen are eternal. We cannot see law, life, nor force but we can trace them to their fountain head—the "Living Effort" which exists co-extensively in us and in the world. Herschel says, "It is but reasonable to regard the force of gravitation as the direct or indirect result of a Consciousness or a Will existing somewhere." We cannot think of these forces in nature or in the school as independent or separate from this creative activity. The mind recognizes in nature a reflection of itself and the power or energy in the world which creates natural law is derived from this Infinite and Eternal Energy. In studying nature or the school we arrive at natural law which brings us face to face with truth. These natural laws which are but the statement of the orderly condition of things, do not originate things but are responsible for the uniformity, intelligence and purpose of things as they exist. It is by means of natural law that both the school and nature are made rational. The laws of nature are drawn for us in order that we may study and understand the divine hand that originated them. We arrive at the conclusion that natural laws are spiritual laws, and that they are the manifestations of the divine unity of the world. "They are God's uniform and regular way of doing things," and are manifested in the natural world, in the educational world and are the guiding principles of a study of the concrete facts of education.

(7) THEORY AND PRACTICE:

Theory without practice is empty, practice without

theory is blind. In fact theory is in and through practice and practice is in and through theory. The theory of teaching or education without making a practical application in the actual school room is of no pedagogical value. We may also say that practice which is not based upon adequate theory is aimless and irrational. How a teacher teaches school depends either upon his previous experience in educational work or upon some theory of education which has been well digested and thought out. The theory of teaching embraces those fundamental ideas and conceptions of principles gathered from science and philosophy which have attempted to explain the nature of the mind, the nature of the objective order, and the nature of the teaching process. When the teacher goes from the simple to the complex, from the concrete to the abstract, from the particular to the general in teaching facts he is guided by theory and his practice will be as rational as the theory upon which it is based. A teacher who attempts to teach and who does not possess principles or theory upon which to base his practice will be unsuccessful. Theory in its etymological sense (theos) refers to God or the universal reason which is the source of all things educational or otherwise. Practice of education which is based upon rational theory will harmonize with the mind's growth, and with the nature of the subject taught. The theories of educational thinkers, Spencer, Herbert, Froebel, Hegel, Rousseau and others have largely guided and influenced the practice of education and our actual concrete work in the school room depends largely upon these educational thinkers who have laid down fundamental truths to guide educational practice. If we are Herbartians our recitation will be divided into preparation, presentation, apperception, gener-

alization and application; if we are Hegelians we will attempt to unify the thinker and the thing thought through an immanent reason that pervades things and our practice will be rationalized and guided by the eternal consciousness which is the genesis of rational teaching and human thinking.

(7) PRINCIPLE:

Some of the principles upon which educational practice is based are culture, efficiency, discipline, knowledge, development, social progress, character citizenship and rational freedom. These principles are plans of action, hypotheses for teaching and determine the nature and purpose of education. If the teacher leads the pupil into the thought and wisdom of the ages, into Greek art and philosophy, into mathematics, and into language and literature for their own sake his principle will be that of culture. If the pupil is required to put his knowledge into practice, if in fact he is not taught any knowledge unless it functions in life, then he is following the principle of efficiency. The modern emphasis in industrial and vocational education is such an example of giving education a practical bearing. If the mind is sharpened merely by the tools of education, mathematics, language, science, etc., then we have the Locke idea of education as a discipline of the mind. By many educators the *summum bonum* of all education is the acquisition of knowledge. The empiricist would say that knowledge depends upon experience, the rationalist would teach that knowledge is due to the inherent activity of the mind and the critical philosopher would say that knowledge is attained both through perception and the understanding.

According to Pestalozzi education is the develop-

ment or the unfolding of all the powers and capacities of the individual. This view is in harmony with the principle of evolution and must have a place in any theory of education. Herbart and his followers would make *character* the chief aim of education. Others would say education is not wholly psychological nor ethical but has a large sociological factor and is an adjustment of the individual to his environment. Education as defined by this class of thinkers is a reconstruction of experience in order to give it a more socialized value. Others would make citizenship the ideal in education. That principle of education which is most fundamental may be called rational freedom. When the individual obeys the inner laws of his own nature and when he finds back of all existence a self-activity or soul akin to his soul, both his actions and thoughts are free His actions are free when control arises from within rather than from without and his thoughts are free when he unifies himself with the thought and spirit of the world other than himself. In conclusion we may say that a principle is a guiding factor in life and has its source in the divine being.

(8) THE CURRICULUM:

The Course of Study is the heart of the school since it serves as the meeting point for teacher and pupil. The child furnishes the instincts, impulses, habits, ideas and thoughts, and the curriculum furnishes the living spiritual activity in the form of civilization. However, the essential thing in education is the interaction between the mind of the child and the inheritance of the race. The interaction between man and nature which we see daily, is the prototype of all education. Dr. Harris would base

the course of study upon civilization as found in mathematics, physics, biology, literature and art, grammar and language, history and institutions and would, therefore, take a retrospective view of education while Dr. Dewey would emphasize the social side of education and take a prospective view. Whatever may be offered as a course of study the chief factor in education is the interaction of personality and environment. The child contributes the psychological factor, the school, the sociological factor and the curriculum, the values of civilization and life. The school is an institution in which are gathered together the influences and agencies of social life which will best put the child into the spiritual inheritance of the race. The school has two aspects or phases, the corporate and the individual. The course of study is the corporate aspect and represents the thoughts of all individuals thinking together in a certain way. The teacher and the child act together for the sake of an interrelated end, which has been previously thought out by the teacher. The corporate energy reshapes the instincts, impulses and ideas of the child by means of the norms of the school. The curriculum gives the *what* and the child the *how* but the essential thing in education is the interaction between the two. By means of this interaction the child's experience is corrected, expanded, deepened and organized and is given the achievement of the race. While personality and environment, the child and curriculum, are important factors in education, the heart of the school is in the interaction between these two forms of activities.

(8) INTERACTION:

In studying the school one will observe that there

is an interaction between the child and the teacher, between the child and the curriculum and between the child and community life. By interaction we mean things mutually affect and determine one another. Without this assumption the school would fall asunder in unconnected units for there would be no force nor causation holding things together. This unseen thing in the school is the inner law which adjusts every objective factor in the school to every other factor. Interaction and law between the child, teacher, curriculum and community are, therefore, necessary to bind these organic elements into a common scheme or system. Whenever there is system, everything is related to every other thing in an all-embracing adjustment. It must continually be kept in mind that the teacher and the curriculum do not constitute the essence of the school for that conception is found in interaction according to law and in harmony with intelligence. A unitary system of interacting members is possible on the supposition of a unitary being which posits and maintains them in their mutual relation. The experimentalist, the inductive thinker would see the factors in education isolated but the metaphysical thinker would see them connected by interaction and law. Attempts have been made to explain the relations of things by transferring the conditions of one thing into those of another, as heat and motion are transferred, or the passing influence which may affect the different elements of the whole. The scientist would explain interaction by forces which play between things and produce, effects, or by the theory of impact which is no more intelligible between independent things than action is intelligence at a distance.

Interaction is not a fact of experience and cannot

be proved by inductive reasoning. All that observation can give us is the concomitant variation among things. The child, teacher and the curriculum do not have their properties and powers within themselves but in their relation to each other. The law for the activity of one of the factors of the school must be given in terms of interaction of all of them. This statement implies that the existence of of one of these elements is relative to the existence of all and things are what they are because other things are what they are. Each of these four factors of education are functions of all and all are functions of each. There cannot be interaction between independent things for the idea of interaction means that one thing is determined by another and hence the child or the teacher cannot exist in an educational sense apart from his correlative. In fact nothing can exist outside of its relations for Green would say that the thing is its relations and if the relations should vanish the thing would cease to exist.

Instead of trying to construct the school from the teacher, the pupil and the curriculum we rather construct these from the idea of interaction which is the source and ground of education. The reciprocal and concomitant changes that take place in the school grow out of the facts of education and have a philosophical significance. We cannot explain the interacting process by means of the relative and dependent but must affirm a fundamental reality which is absolute and independent and in the unity of which we find the true explanation of interaction and education. The interaction of these educational elements is possible through an All-Embracing Unity which co-ordinates and mediates the seemingly contradictory elements into an organic whole. The

pluralism of inductive thought must be replaced by a monism of speculative thought. This fundamental reality is self-sufficient, independent and absolute and organizes the educational facts into a coherent system. Again we have passed from the elements of the school, the elements of education to a universal being who is creative and constructive and generates all forms of activity and all phases of education. This architectonic principle is the life of the plant and animal, the essence of man and the underlying reality of education.

(9) THE SCIENCES:

In the formation of the curriculum the sciences have become important factors and must be recognized because they present concrete facts, classify knowledge, and give the mind's interpretation of objective reality. The facts of science are not as concrete as they first seem for they represent the reaction of intelligence upon the objective order, creating a subjective order paralleling objective existence. In fact, botany for example, has more to do with mind than with plant life, and is more a product of mind than a product of matter. Botany is what thought knows (*scio*-to know) of the flora and if there is any plant life not known to the mind it is not a part of botanical science, however real it exists in the outer world. It is true there are objective forms, roots, branches, leaves, etc., and uniformities known as laws of nature, but all of these are what they are through the relating activity of intelligence for we must constantly remember that while the understanding does not make nature in an ontological sense it does make it in an epistemological sense.

In teaching zoology the instructor is supposed to be dealing with hard lumpish existence, such as the panther, owl, etc., but neither of these enters the mind and what he is trying to get into the mind is some one's interpretation of what these lumpish material existences mean. When Couvier builds up an animal out of a single bone he constructs the animal out of his own inner consciousness and both the real and ideal are the work of the mind. The ages and eras of geology are the work of the mind paralleling certain objective strata actually existing in the real world. The reactions in chemistry are a series of mental reactions reflected in the mind from the heart-beat of the world. Kant opposed Hume and Locke and taught that all scientific experience is due to the organizing activity of intelligence. Later thinkers would say that there is in nature a cosmic intelligence corresponding to human intelligence which gives nature its real existence and connects it with human consciousness.

(9) THOUGHT:

Since science and thought exist together and vary together it is inferred that they belong together for the frequency of their coincidence proves that the relation is not a chance conjunction but a real connection. The previous discussion of the formation of science has established the fact that the body of knowledge known as botany, geology, etc, is due to the creative activity of thought and that the things of the world are organized into science through a thought activity. In this way thought builds up the ideal world (in distinction from the real world) which forms the basis of all educational work. The instruction the individual gets in science is this ideal

knowledge which has been classified and arranged in the most teachable and interesting form. In thinking of such as ideal system of knowledge the unity of mind is the supreme thing and the members of the system come into existence through a unitary thought. This system of thought may have for its basis a supreme self-determining reality which is the ground for the constant and rational order of things.

Is this discussion we are taught that the facts of science exist for us only as the mind builds them up within itself. The forms of the different sciences are the forms of thought and we can have no knowledge which is not determined by these forms. Botany zoology, etc, are descriptions of objects cast in the molds of thought for unless the laws of thought are the laws of things science is impossible. The dualism of matter and thought in science has been overcome by an absolute idealism whose origin can be traced to Kant. In Hegel this dualism is cancelled and both thought and thing have their genesis in the eternal reason. This primal thought was developed by its own laws into a world of persons and a world of things. Stated inductively thought and thing are terminal points of view of one eternal world movement. In fact in any system of metaphysics of education, thought and thing must be identified. To illustrate this problem let us study the triangle; it may be studied from its content or meaning or from the mental activity necessary to conceive it. Only in the sense of content or meaning can the thought triangle and the thing triangle be identified. Since it is the thought of a triangle with which we deal and these thoughts are subject to logic then the laws of thoughts are the laws of things. If it can be proved that thought is the active principle of reality then thought acquires an objective significance and the

human mind is able to comprehend the world of reality.

In a metaphysics of education we need an explanation similar to the Kantian trichotomy—the soul, the world and God. The soul represents the finite knower, the world, objective existence and God is the presupposition and bond of union. We must get behind the finite subject and object and seek for a common bond of union if knowledge and education mean anything. The only solution to the problem is the dualism of the finite must be superceded by a monism of the infinite. The thought and extension of Spinoza are two attributes of an infinite substance or according to other writers mind and matter are considered opposite poles of a basal reality. This form of dualism is incomprehensible and the final solution is to make thought the source of things or the activity through which things exist. The finite subject and the cosmic object must find their bond of union not in an impersonal substance but in a personal absolute. As things are products of creative thought and are commensurable with intelligence and as the human mind and the cosmic thing are traced to a common source the antithesis of thought and thing are overcome. Science and mind, fact and thought can be traced to an all-comprehensive unity and an eternal consciousness whose evolution resolves itself into this dual manifestation.

(10) EDUCATIONAL AIMS:

In establishing free schools the state has an aim, in building a school house, the city and district have a purpose, in organizing a school, the principal has an aim, in teaching a class the teacher has an end to be realized. To teach without an aim is to attempt

to run a ship without a rudder. Purpose gives both teacher and pupil interest and attention and acts as a powerful incentive in the completion of a definite course of study. If the student desires to attend college he studies mathematics, language and literature and such studies as will aid him in realizing his college ideal. The teacher should have a definite end in view in every recitation and both teacher and pupil should work together for the accomplishment of a definite purpose. A student sometimes studies English or book-keeping in order to prepare himself for some commercial position. It is well to have a specific purpose and then have a supreme purpose which when realized will direct the individual to the highest aim possible in life. Suppose an individual has for his ultimate purpose in life, perfection or self-realization, then he must have a specific purpose such as studying language, literature and history as a means to the desired end. When a pupil studies a subject he should understand it in relation to other subjects and know what it means in the realization of his life's ideal.

It will thus be seen that purpose rules the educational process and no act of school work should be aimless but every study hour, every recitation and every subject studied should have a definite aim in the attainment of all that is truest, best and noblest in life. School purposes have their origin not in the life and thought of the teacher merely but in the eternal purpose which guides and rules all things. The many specific purposes which guide the teacher in his work should be grounded in a universal purpose which is coextensive with the life of the individual and the life of the world.

(10) Purpose:

In all organic life we find an activity which tends toward a future end. In the acorn and egg there is a forward look to an ultimate purpose for the realization of the species. The teleologist sees in domestic animals, cereal grains, metallic ores and coal beds, a provision for mankind. From the inductive angle of view we find many marks of design and contrivance in the organic world which impel us to believe that there is an intelligent and purposive being back of all things. In fact the purpose running through the world cannot be explained unless we presuppose a divine purpose as its origin. In nature we see contrivances for the distribution of seed and for the preservation of life which cannot be explained by natural selection but which can be explained only upon the hypothesis that purpose rules the world. When we see processes in nature which look to forward results, as the sprouting of seed and the blooming of fruit trees, we conclude that these natural processes are not due to efficient causation but must be explained in terms of final cause. Events and facts which are due to an order of law must be interpreted in terms of purpose. While nature realizes her purpose from within, human beings realize their purpose by setting up ideals and striving to attain them.

Final cause does not exclude efficient cause but the end is attained through efficient means. We set up a certain ideal of education to be attained and this purpose can be realized through mechanical forces and phycal activity. The essential thing in the problem of purpose is the forward look, the toil cooperant, whether in the acorn or in the egg, in the biological system or in the great world movement.

The scientist tells us that natural selection has destroyed final cause, but the fact is instead of destroying design modern science has enriched and emphasized it. Natural selection is not the sole cause of organic development but acts by selecting variations and the variations must exist before they are selected. Since the world is a necessary consequence of variability it is full of adaptation which suggests design. As all variations are vigorously determined, then all natural selection which uses these variations must be designed. There is in the organic system no place for chance but the purposive-like adaptations must be explained by a supreme purpose. The trouble in the question of design is that when it becomes too complex it is difficult to understand and when purpose is slowly realized it is difficult to believe. Again when purpose works through a traceable law it is not supposed to be purpose. A positive inductive argument for design begins by showing that many processes in nature are determined by an end. The evolutionist would say that the special senses were developed by adaptation to use while the teleologist would say the aim of the eye is to see, the ear to hear and lungs to oxygenate the blood.

We first make an inductive inquiry whether there be an activity for ends in nature and then conclude that such finality can be understood by a purposive intelligence. There are a great many activities in nature which are impossible to explain unless we refer them to final causes. There is a natural transition from the purpose of human action to a purpose of a world action. This cosmic activity which permeates the world is the ground for all design of nature and for all aims in education. The aims, ends, ideals and purposes in education may be traced

to the universal reason which Royce says, "plan and you plan" and is the genesis of all perfect activity in humanity. Again the metaphysics of education is proved by referring the concrete activities of the school to a unitary reason which controls all educational and physical life. Such a study of education unifies and organizes the factors and forces in education and refers all school activities to an original energy. The science of education studies and classifies the facts of education as the analyst would the facts of any material. But unless these facts are given a philosophical significance, they have no permanent basis upon which to rest.

(11) TEACHER AND PUPIL:

The two essential factors of the school are teacher and pupil, or as some one has said the school is the organic spiritual unity of teacher and pupil. What makes the teacher a teacher or the pupil a pupil is his personality, which may be described as the unifying principle organizing man's attributes and functions into an individual self. Matter, force, energy, ideas, time, space, law, freedom, and cause are meaningless except in the light of personal experience. It is from the intense consciousness of our existence as persons that the conception of reality originates in our minds. Self-consciousness which involves self-determination is the fundamental characteristic of personality.

These marks of personality belong to both teacher and pupil and make both a rational energy rather than a substance and a being capable of self-determination and self-realization. The synthesis between teacher and pupil causes the pupil to realize the spiritual principle which exists in his own nature and which

is ultimate of all that is. To understand the organic unity of teacher and pupil, and pupil and curriculum would lead us to an understanding of the nature of things which organizes the school and represents the heart-beat of what is. The teacher, pupil and the school are different manifestations of a single principle and to be in harmony with the life of the school is to be united to this divine *nous*. The pupil is not a physical being, not so much an individual, but a real person who can distinguish between what he is and what he ought to be and whose essential nature is consciousness and self-determination. That which is taught is a personal being whose preëminent characteristic is self-activity and freedom. So much emphasis is now placed upon the physical child that education seems to be more a physical process rather than an intellectual one.

(11) Personality:

The purpose of science is to study and classify facts but the purpose of philosophy is to interpret and explain personal life and personal relations. In studying personality we must remember that experience is not primarily from without, but is through a constitutive, mental activity immanent in the understanding. The outer world, the sense clicks of the telegraph instrument, language, music and painting means nothing to the individual unless he has the key to each within himself. The world that I know is my own personal world and the things we see are the things we construct in our consciousness for the mind in knowing objects, imposes its own forms and laws upon the object. I cannot interpret the hieroglyphics on Cleopatra's Needle in Central Park until I have the key within myself, but it is also

true that the inscription must have meaning if it is to be interpreted. The only real unity in the outer world for me is the unity of self-consciousness as the world of knowledge is constructed by our own personal activity, so the world of reality must depend upon some supreme intelligence behind all things. We cannot understand language unless it is informed with thought and we cannot understand the world unless it is informed with supreme thought.

One of the chief elements of personality is freedom, which means the power of self-direction, the power to form plans, purposes and ideals and the power to realize them. Naturalism and realism are species of impersonalism which attempt to explain the world by an impersonal and mechanical principle but it cannot explain life, morals, mind and society, for the explanation of these is the world of power which includes intelligence and purpose. All species of impersonalism including evolutionism fail in finding the world unity, for the only unity that we know anything about is the unitary self. The essential meaning of personality is selfhood, self-consciousness, self-control and the power to know. A complete and perfect personality can be found only in the absolute being.

The personal world is the invisible world. The physical being is an instrument for expressing the real personal life. Personality is revealed through ideas, thoughts and deeds and the real person is as invisible as the supreme personality behind the phenomenal world. In fact our physical attitudes and actions mean nothing when separated from personal life behind them. Out of the invisible comes a meaning which transforms these physical activities into personality and gives them a human significance. A

world of persons with a supreme person at the head is the conclusion at which we arrive by an inductive study of the facts of education. From a metaphysical point of view we cannot explain the existence of the many without affirming a fundamental reality which is one, but which produces and co-ordinates the many. It is difficult to understand the relation of the many to the one, but we know that reality is not an extended stuff, but an agent, a self-conscious intelligence. Our personality is in self-control, self-direction and the freedom to act upon our own initiative. We must remember the self-control of the free spirit.

The supreme personality has been called pure will, unconscious intelligence, impersonal reason, impersonal spirit, and universal life. Schopenhauer calls this reality pure will without intellect or personality. The mind world of Plato and the plastic principle of Cudworth are examples of unconscious intelligence. By the term impersonal reason some would mean a blind force which is not reason but which is adjusted to the production of rational results. The impersonal spirit is what the atheist calls the persistent force of the universal life. These do not contain the elements of personality; namely, selfhood, self-knowledge and self-direction. The absolute knowledge and self-possession which are necessary to personality can be found only in the absolute and infinite being upon whom all things depend.

(12) ART EDUCATION:

According to Huxley the aesthetic faculty needs to be aroused, directed and cultivated and no scheme of education is complete that does not include a study of art. The purpose of art is to reveal to the child all the possibilities slumbering within his soul;

to assist him in carving the spirit in marble, in painting the soul on canvas, and in unveiling the rhythmical spirit in song and in verse. In drawing the child is expressing his thoughts which at first may be crude and fragmentary, but which become more complex and beautiful as he understands how to liberate the pulsating spirit upon paper.

If we make a study of the evolution and psychology of art we will notice that the lowest form is *artifice* which aims at utility. The second phase of art development is *artistic treatment* which aims to portray the agreeble feeling. We may illustrate this phase of art by the yacht whose lines are as graceful as the boat is useful. The *ornamental* is the third division in the evolution of art and is a decoration of some instrument or utensil. The properties of ornament are symmetry, repetition and feeling. The next evolutionary division of art is *embellishment* which excites our admiration and wonder. Examples of this form of art are the jewels on harness, the rings on the fingers, and the feathers in the hair of the savage. The so-called Fine Arts, painting, music, poetry, sculpture and architecture are the highest forms of art which arouse the emotions and stimulate the intellect. These last forms of art may be classified as the symbolic, classic and romantic. These classifications are based upon the relation between the ideal and the material in which it is represented. In architecture or symbolic art, the material predominates over the spiritual and the cathedral does not represent an idea *perfectly* but merely hints at it. In sculpture or classic art the material and spiritual are balanced. In romantic art, painting, music and poetry the spiritual predominates over the material and we have the highest form of art.

(12) The Aesthetical:

The aesthetical problem in a metaphysics of education is to show that the many forces of art may be traced to the absolute, self-determined spirit. The beautiful which has been defined as the shining of an idea through a sensible medium has its origin in the human soul and in the divine being and is nothing more than the inner self unfolding itself and objectifying itself in external form. In its ultimate form the ideal in art is the absolute self-determining spirit or the divine principle realizing itself in some objective form. According to Dr. Kedney this eternal principle of art is the beautiful and inhabits matter and constitutes its veritable essence. In other words it is the universal reason which manifests itself in the human soul in the character of truth, beauty and goodness.

In modern education the child's aesthetic nature is starving and we need to develop the beautiful in all phases of school work. In written recitations the pupil should understand the principle of balance and be able to put his work upon the blackboard accurately and artistically. Children should be introduced to works of art suitable to their age of appreciation, beginning perhaps with Landseer and Millet and in the advanced grades of school work ending with such artists as Titian, Raphael and Michael Angelo. To study these great works of art and to live in their presence really constitute an aesthetic education. The individual should study a picture, poem or an opera not merely to understand the meaning but to appreciate the soul inspiring beauty which is the heart of a work of art. Since the self-determined spirit is the prototype of all beauty all study of art is cancelling the estrangement, as Rosenkranz would

say, and returning to itself enriched, realized and completed. It is the active principle by which the mind grasps the spiritual in art and in nature, and makes it a part of its own being. Mind becomes satisfied, attains its freedom when it permeates all its products and the products of the supreme intelligence and makes them its own.

(13) MORAL EDUCATION:

Many aims have been proposed in education; as culture, social efficiency and character formation. While each of these have their value in education a highly developed moral character seems to be the supreme purpose of all educational work. Teachers may differ as to how this may be realized, whether by obedience to authority or by the self evolution of the individual's own initiative, but all educators will agree that pupils should understand their ethical relationships. It is not moral education to merely train the will but to stir up the inner life by intellectual endeavor and give the individual an appreciation of what is true, beautiful and good. Each pupil should be taught to recognize in every other pupil a self akin to his own nature to which he must adjust his own life in order to bring out what is best in him.

To introduce some artificial stimulus, as a prize or a reward, between the pupil and what he studies, is not only a violation of the teaching process which assumes a unity of the two, but also in direct opposition to correct ethical training for the pupil will practice deceit when he studies under the pressure of a prize or reward. School ethics should be taught in a concrete manner by leading the pupil to see the consequences of his own act. If a pupil injures another or causes some one unhappiness intentionally

the deed must be made to return upon his own head, and he should be made to suffer not merely for his act but to teach him the results of immoral conduct. The pupil should be taught obedience to the law of the school not externally but should be made to see that to live in harmony with the school he is obeying his own rationality and thereby attaining his own freedom. Moral principles should be taught experimentally and the pupil should be led to realize that duty to self and duty to others are harmonized by grounding both in a principle of eternal consciousness.

(13) The Ethical:

Since the characteristics of the mind (combining and unifying) are marks applied to the Divine Mind, we infer that the human mind is a form of the eternal consciousness and the key to ethical training is personality, humanity and divinity. According to Thomas Hill Green there is a Divine Eternal Spirit who is all the human spirit may become. Spirit is self-distinguishing, self-objectifying and combining, and the categories it uses in understanding nature are the same categories it uses in reflecting upon its own nature, and this synthesizing principle becomes the moral ideal. As a corollary to this statement the self-conscious personality has its origin in the supreme personality and the ethical ideal grows out of the intellectual, combining, self-distinguishing and self-objectifying agency.

The ethical question is to study the relation in which we stand to the one self-distinguishing subject other than nature which we find to be implied in nature. Conduct expresses a motive consisting in an idea of personal good which we seek to realize

in action. The presentation of such an idea of conduct implies the action of the eternal consciousness. The chief question of ethics is what is our moral nature, what is the moral good and what do we mean by calling ourselves moral agents? The answer to these questions is:—the moral good is the realization of the moral capability and we cannot know fully what moral capability is until we know its final realization. We can approximate what a capability may become by knowing what it has already attained. It is impossible to attain moral and intellectual perfection which an individual is to become according to a divine plan, for we do not know the individual's potential activity and we cannot conceive of a perfect state of self-realization. However, we are inclined to believe that there is a state of being for man which is called the best in the fact that it lies in the full realization of his capabilities and that in this realization he alone can satisfy himself. He also takes it for granted that the best state the human individual may attain, is already realized in the divine consciousness, so that the whole duty of man is to attain some unfulfilled and unrealized state which the divine has already accomplished. The very fact that there is an attainable state for man, has an influence in the process by which man has so far bettered himself, and that a continued operation of the same idea in us with the growing definiteness which is gathered from reflection on the actions and institutions in which it has so far manifested itself, is the condition of character and conduct.

In order to justify this statement, we must lay down the principle that reason holds that the existence of one connected world which is the presupposition of knowledge, implies the action of one self-condition-

ing and self-determining mind, and that our knowledge and moral activity are explicable on the hypothesis of the reproduction of itself on the part of the eternal mind. This proposition cannot be proved by observation nor experimentation, but it is the only doctrine that affords means by which we can understand, by taking the whole world and ourselves into organic unity, "*how we are and how we do what we do.*" In this statement we express what cannot be denied and what man's reason and man's will actually attempt to attain.

According to this theory the eternal mind manifests itself in the intelligence and will of man. In virtue of this self-objectifying principle, man is determined not by natural wants and laws, but by the fact that he has ends and capabilities to be realized. While the animal gropes in the dark, man has the impulse to transform his potentiality into actuality and is, therefore, a self-determining creature. Man lives for ends which the divine principle makes him capable of attaining and in working out his moral ideals he is doing nothing but realizing the promise and potency of his nature.

The virtuous life springs from the same self-objectifying source as the vicious life but the virtuous life is governed by the consciousness of a perfection to be attained, of a vocation to be fulfilled, of a law to be obeyed, and of a mysterious force which enables an individual to attain his perfection. These ideals are what keep the individual in a progressive state of moral perfection. According to this doctrine of ethics both the reason and will which play such a large part in ethical discussions are modes of that eternal principle of self-objectification which produces itself in man through the medium of an animal or-

ganism. To develop one's capabilities is to unify the developed will and developed reason for the self-objectifying principle cannot exert itself as will without exerting itself as reason. The moralizing influence in man depends upon his reason because through the operative consciousness man realizes his possible state to be obtained which is better than his actual condition, and because the divine self-realizing principle in him gradually fulfils its capacity in a production of a higher life. The initiative, virtuous habits and actions depend upon the consciousness which is directed in the path in which it tends to become what according to its immanent divine law it has in it to be. For the self-realization of the divine principle in man, the will must harmonize with reason. The better reason enables him to see the better good and the eternal reason moves him to attain all his possible capabilities. In every moral action the will is exerted as much as the reason and every step forward in the perfection of the divine principle in man involves a determination of will no less than of reason.

We have been brought in our argument to the one fundamental axiom that the divine mind reproduces itself in the human soul through certain media, under certain limitations, but with the constant characteristics of self-consciousness and self-objectification. For man, the true good is to realize these capabilities for this alone *can satisfy him and give him rest.* Just how these capabilities are to be realized is not known for they have not wholly been attained by any living human being. The fundamental influence lies in the consciousness of his capabilities, potentialities and of obtaining his fullest realization which his spiritual nature may enable him to attain. This inner spiritual principle is the essential characteristic

of human institutions, social ideals, and aspirations through which humanity has been bettered. Therefore, an individual's true good will be the realization of these eternal immanent principles of mankind, and his goodness depends upon his approximate attainment of them. Just how the realization of these ideals becomes a moralizing principle in human life and how it has developed our moral standards must be further explained. First, there is a certain divine principle which is the ground of human will and reason. Second, these principles realize themselves in man. Third, this divine principle has capacities and capabilities which when fully developed would constitute the perfect life.

These moral principles may be realized in society or in the individual; both must have ideals placed before them. To be a self-realizing ego is to have personality and personality has only one meaning and that is, it is the quality in the subject of being conscious of an object. We, therefore, come to the conclusion that this divine principle can be realized only in and through personality. It is impossible to conceive the idea of personality apart from self-objectification.

Moral life is the fulfillment in the human spirit of some divine idea. The possibilities of man are due to the spiritual energy implanted in him by the divine idea. No one can exhibit all that the spirit working in and through *is*, potentially. Moral progress is due to the realization of the eternal mind implanted within us.

(14) SOCIAL EDUCATION:

In the light of social science education is defined as a modification of experience in order to give that

experience more value socially. Education is not wholly psychological but largely sociological and is an adjustment of the individual to his intellectual studies and also to his social environments. The individual has a social nature as well as a psychological nature which must be developed in a social reconstruction. Since the school is not so much a preparation for life as it is actual life it should reproduce in its processes the phases of social life which the pupil is to enter in later life.

Some of the external factors of the school which train him in socialization are games, chapel exercises and literary societies. It is just as much an education for a pupil to adjust himself to these social organizations as it is to grasp the meaning of the subjects which he studies. In every school and community there are many social organizations: the art club studying the history and development of painting; the civic club working for better municipal government; the sociological club studying social laws and forces, and social degeneracy and crime; and the child study club studying child nature. These social organizations are educative and wear off the rough edges of the pupil's nature and prepare him to appear in polite society.

The recitation has been called a social clearing-house and we know that many subjects studied in school have an intense social value. Education in harmony with the social may be defined as a systematic process of training the growing mind plus an external process of adjusting the individual to his natural and social surroundings. The school, the class, the grade have a great social influence upon the student. When a pupil enters school, he is made to march to the music of the new social order and is thus socialized from the first day he enters school.

(14) The Social:

The social problem in a metaphysics of education is to recognize the social elements and trace the unifying principle of society back to its supreme origin. To think society as an organic concept, we must have a rational notion of the relation of the individual to society and should understand how the existence of the individual involves and is involved in the existence of society. We are prone to believe that the individual and society are different aspects of a unitary process and that there is a vital and intrinsic relationship between them. If we are to understand the meaning of the individual and society we must have a knowledge of the principle from which this manifoldness arises. To try to unify them to a common substance in which they cohere instead of making them one for thought is to put them together in a mechanical way. The principle of substance may explain the unity of particular objects but when we consider spiritual beings it does not enable us to comprehend the spiritual unity of man's nature much less does it give us any idea of the organic unity of individuals. By the principle of being we may secure the mechanical or chemical unity of things, but when we consider a spiritual being the individuals are as unconnected, so far as thought is concerned, as the separate stones of a heap. In considering rational beings the principle of substance fails to give us any organic unity.

The relation between the individual and society is a spiritual one, and the unity is not a unity beyond differences but a unity which manifests itself in differences.

It is the very essence of mind or spirit to contain

within itself relation to other human beings. The idea of self-consciousness implies an internal dualism, a self which is opposed to itself and a self which realizes itself through other beings than itself. The individual exists in and through society and society exists in and through individuals. The individual realizes his nature through other natures which are outside of himself but which are in organic relation to himself. The total life of an individual as a spiritual being consists in taking into himself that which in society is opposed to himself but which in reality is a terminal aspect of one organic movement. The mind of the individual cannot be thought of as an entity distinct from other beings for it has no reality apart from them. This unity is a unity in differences in which it finds its very life and existence.

Thought in its deeper movement can rise to a universality which is the inner life and nature of things. This universality is immanent in the particular and has been defined as an absolute identity or that which cancels all difference and otherness. The particulars of the world are but manifestations of a universal process. We do not attain the idea of an organism by thinking the part, members and particulars but we get a true notion of these through the universal. What the parts of an organism, the tree, the animal, society, are, is determined by the idea of the organism in which they are to realize their true nature.

In a sense, society produces individuals for in it lies the ground and reason of their existence. According to the organic concept of society, the individual is a manifestation of a social whole and the social whole fulfils its idea in the diversity and harmony of the individuals. This unity cannot be reached by mere

predication but in order to apprehend it, we must think in diversity and connect the individual with society and understand that society has its existence through individuals. The individual attains his ideal existence by giving up his self-identical life and finding his true life in the larger life of society. An individual realizes his true nature, becomes actually what he is potentially by ceasing to have a will of his own and by identifying his life with the life of society. The members of a social organism are considered independent yet the individual's life can be realized only in the larger corporate life of society. Apart from this larger life of society the individual is an abstraction. My nature reaches its fullest development when the moral life of society flows into me. The more developed society becomes the richer and fuller is the life that flows into every member of it.

This original unity is different from the unity of generalization and indicates a movement of thought corresponding to the inner nature of things. The organism in every stage of its growth not only is, but is passing from that which it is, to that which it is constantly struggling to attain. An organic unity is a unity by virtue of its inherent energy seeking the end for which the organism was created. The organic view of society makes the relations between individuals intrinsic, makes changes depend upon internal adaptation, and sets forth the doctrine that the end or purpose of anything is its essential element. If society is a spiritual organism there is then an intrinsic relationship between individuals, and the growth and development of society are purposive. The end of the individual is attained in and through the intrinsic relation to other individuals and since these relations bind individuals into society, they are called organic.

It is true the individual's nature is determined by society in which he lives, but it is also true no man is merely the product of society, for then it would be impossible to give an account of individual differences. Since society exists for its own end as well as for the end of the individual, the unity which binds these elements into a whole may be called organic. If human welfare is the end of society, then the end forms an essential element in society itself. It is wrong to call society or anything else organic unless its end *lies in its own nature.* It is argued by some that the only sense, it is correct to call society an organism, is to say that the end of society is the end of the individual. McTaggart says it is true that earthly society can never be the final end of man, for there is an absolute ideal of heavenly society to which we are all moving by the very nature of things. In mundane society each individual is striving for perfection so far as earthly society can assist him. If the Absolute alone is an organic unity, then earthly society will approach an organism just as it approaches perfection. Whatever may be the nature and constitution of society, whatever draws individuals together, the solidarity of humanity can be maintained only on the presupposition of an eternal consciousness which is the source of all life and thought and to which all human beings are striving to approach.

Doctor Ormond says a real social reaction occurs when one conscious unit through the medium of its cognitive insight enters into the conscious life of another conscious unit and finds it interesting. From this statement we get the principle that sociality is developed out of the conscious union of individuals who have a likemindedness and a unity of thought and purpose. For one conscious unit to enter socially

with another conscious unit, there must be a community of nature or likeness of species to make the one the complement of the other. If the sympathetic and antipathetic are equally balanced no society can exist.

Individuals who form communal molecules may be called social atoms. The forces which draw these atoms together into an organism is a common nature, a common interest, and a common purpose. This unity is not a mere aggregation but is an interpenetration of individuals endowed with the same social instincts and the same cognitive powers. The social order is chaotic unless we rise to a final synthesis in which the world movements are conceived and guided under an all-comprehending thought and purpose. This thought and purpose may not be one with the thought and purpose of the social group but it is one with an eternal consciousness in which the world-movements as a whole are conceived and purposively directed to a unitary end.

III.

AN EDUCATIONAL INTERPRETATION OF METAPHYSICS.

The Metaphysics of Education should give an interpretation of the different systems of thought, showing their educational bearing and noting their contribution to educational theory and practice. No attempt will be made to work out a logical classification of the different systems nor to make an exhaustive study of them but to show that metaphysics has a direct influence upon the problems of education. Every system of thought has left its imprint upon educational subject-matter, upon educational methods and upon the formation of the different systems of education.

The Numerical Group.

The numerical group includes atomism, pluralism, dualism and parallelism. The ultimate reality of these philosophical systems is respectively one, many, two, and two in relation. Leucippus thought that the world is made of eternal, unchangeable, indestructible, homogeneous particles called matter. He claimed that there are countless numbers of atoms and that their size must be imperceptibly small since all things in our experience are divisible. Democritus agreed with Leucippus that empty space and the atoms moving in it, constitute true reality. He attempted to explain from the notion of these atoms all phenomena as quantitative phenomena and to

interpret mental activity in a similar way. From such metaphysical discussions grew the concept of atom which has proved so fruitful and valuable to natural science. Chemistry and physics are based upon the atomic theory and all scientific education has felt the influence of atomism. Since nature is not an organic whole but an aggregate made up of atoms, so society, it is argued, is not organic but is made up of an aggregate of individuals. Individualism in sociology, ethics, and in education grew out of the atomic conception and has had a far-reaching influence upon educational procedure. Even if atoms have been replaced by electrons the same conception remains and the influence is still atomistic.

The theory of thought which says that ultimate reality consists of a multiplicity of distinct beings is called pluralism. It may be molecular as in atomism, spiritualistic as in the monadology of Leibnitz, or indifferent as in Herbart's reals. The monad of Leibnitz is psychical in nature, has been called "The mirror of the world" and contains the whole universe as a representation within itself. They vary in grades as follows: consciousness slumbering in the stone; dream consciousness in vegetable life; a balance of mind and matter in animal; excess of mind over body in man and in deity. Monadology is a pluralistic spiritualism but is an advanced thought over atomistic materialism. Herbart's reals are simple, unchangeable and their absolute qualities unknowable. They disturb and inhibit each other and the whole course of psychical life is explained by the interaction of ideas. Berkley assumes that the world is made up of a multiplicity of individuals and these individuals are immaterial. He accepts the doctrine that ultimate reality consists of distinct spirits. Hume

teaches that reality is immaterial and that the universe is made up of impressions and ideas. One form of personalism is pluralistic and holds that reality is a system of related selves or related persons.

Pluralism has had a decided influence upon thought and education but the elements of the world are not materialistic as in atomism but are now considered as psychical and hence explained better the nature of the school, society and the world. Professor James says in his Pluralistic Universe "For pluralism all that we are required to admit as the constitution of reality is what we ourselves find empirically realized in every minimum of finite life." He further states that nothing real is absolutely simple and that every smallest bit of experience is plurally related. The philosophy and mathematics of Leibnitz have been a contribution to education and have influenced human thought in molding educational procedure. Herbart's mataphysics influenced his educational theory; preparation, presentation, apperception, generalization and application. Perhaps no philosopher ancient or modern has had a greater influence upon education than Herbart. Psychical life is considered a kind of dynamic chemistry of ideas and new ideas are gained by means of old ideas. No word in educational literature has had such a magic influence as apperception, and none has transformed teaching so much as his many-sided interest. Berkley's Theory of Vision is still studied in Psychology and his doctrine of spiritualism is still felt in human thinking. Hume's ideas, impressions and the laws of associations—contiguity, space and time, resemblance and causality—have modified psychical inquiry and are studied by all students of psychology.

According to dualism reality is two: mind and

matter. This view is found in common sense, which recognizes the ideal and real elements found in the world; in Zoriaster's Ormuzd or light and Ahriman or darkness; in the good and evil in church philosophy; and in the *res extensa* and the *res cogitans* of Decartes. Kant in his philosophy discusses the relation between sense and understanding, the phenomenal and noumenal world. The distinction between subject and object originated in Christianity which puts the emphasis upon the spiritual rather than upon the material phase of life. "For what shall it profit a man if he gain the whole world and lose his own soul," is the Christian maxim. According to Augustine the spiritual world is divided into two elements; the realm of God and the realm of the Devil. Windelband says that the two occupy in the course of history a relation like that of two different races which are mingled only in outer action while internally they are strictly separate.

No metaphysics permeates educational theory and practice so much as dualism. The course of study, the method of teaching and the purpose of education are dualistic. In studying the sentence, literature and history the student distinguishes between the form side and the content side. The thought in the sentence is distinct from the language in which it is couched; the form of a literary production is different from its meaning or thought. Every event in history, as the Declaration of Independence, has a form side and a meaning side. In fact in many poems and dramatic productions there is a distinct struggle between two phases of life. In "The Rainy Day," it is sadness and cheerfulness; in the "Two Voices," it is life and death; in the "Merchant of Venice," it is love and hate. Homer's "Iliad" con-

sists of a series of dualisms and reconciliations. In a study of physiology we consider the physical and spiritual sides of the child's life. In ethics and in school management there are two principles which control life; egoism and altruism. In fact children are classified in their studies and in government as good or bad. The teaching process is analyzed into the method of the object and the method of the subject. Science deals with ideas and facts or the physical thing and the thought about it. The immanent principles of human thinking and knowing are dualistic; object and quality, likeness and difference, whole and part, one and many, cause and effect, time and place, purpose and means, fixed and changing, individual and universal and appearance and reality. Educational theory and practice have been dominated by a species of dualism which to many thinkers is the final word and no reconciliation of opposing forces is considered. It should be the teacher's purpose to transform real teaching into ideal teaching and to show that content determines form or as Goethe puts it, the individual is to set forth some universal truth.

The last of the first group is parallelism which assumes that every psychosis has its neurosis, or brain processes and psychical processes are concomitant phenomena. Some would say that there is nothing in the simultaneous action of brain and mind that proves the connection is one of parallelism rather than one of interaction. If parallelism be true then to every molecule in man's brain there must be an answering elementary idea. There is nothing in the law of the conservation of energy that keeps us from believing whatever produces a physical change must itself be physical and whatever produces a psychical

change must itself be psychical. This parallelism is, therefore, a case of coexistence and not an example of causation, for the plane of psychology is distinct from the plane of physics. According to Weber's law the relation between a stimulus and a sensation is a definite mathematical ratio. This was proved experimentally in listening to sound, in testing weights until the law was verified. Those stimuli which do not effect consciousness are said to be below the threshold or limen of consciousness. Spinoza is the most thorough going parallelist and holds that matter and ideas are attributes of one divine subject and that every material object has its ideal counterpart. In answer to Spinoza we might say that if the order and connection of ideas conform to the order and connection of physical things, it matters little whether we have one or two substances. The doctrine of atomism claims there is no causal connection between the series. The doctrine of psychophysical parallelism is not an explanation but an hypothesis, for we do not know that physical energy is transformed into psychical energy any more than we know how the spiritual and material are united in man. How the immaterial can be united with the material says Sir William Hamilton, is the mystery of all mysteries to man. Pathology and modern physiological psychology have thrown much light upon the problem of the relation of body and mind.

Psychophysical parallelism has proved to the educator that the individual to be educated is both psychical and physical and that the mind is trained by first applying the stimuli to the physical organism. It organizes the conditions of growth in accordance to psychophysical principles and takes into consideration the sub-conscious or the threshold of con-

sciousness which the educator should understand. It has introduced into school, certain tests which are valuable in teaching, in government and in organization. The ear is tested and the eyes are examined in order to facilitate the acquisition of knowledge and as a means of school government. It has an intimate relation with a study of the sensory and motor areas of the brain and with certain pathological conditions, such as aphasia and alexia, which have an influence upon education. This theory, however, is not entirely satisfactory for education is not brain development but mind development. It has emphasized the physiological and hygienic condition of children and has shown conclusively that the being to be educated must be physically and psychically sound, and emphasizes John Locke's maxim of a sound mind and a sound body.

The Material Group.

The material group is not a logical arrangement but rather a convenient mode of classification for discussion and embraces materialism, naturalism, mechanism and positivism. Materialism resolves all things into matter and everything including consciousness is derived from matter. Moleschott makes the statement that thought is a motion of matter. Vogt claims that mental activity is the function of the cerebral substance. Haeckel makes mind a function of the central nervous system and identifies spirit with energy which Ostwald says is the ultimate reality. Any philosopher who reduces mind to a sum of mental states and then uses these states as a result of organization is materialistic. The great difficulty with materialism is that thoughts and feelings have

nothing in common with matter and motion and it is impossible to identify the mental with the material. It does not remove the difficulty to say that mentality and materiality are opposite phases of the same substance and are at heart one. Since it is impossible to explain thought in terms of matter and motion a *tertium quid* is introduced to show the relationship. But if one thing cannot be proved to be related to another thing, how can each of these be proved to be related to a third?

Pathology has an argument in favor of materialism, for a diseased brain produces a diseased mind and a defect in mind is usually traced to some defect in the brain. It is argued that as the brain develops so the mind develops and the more brain organization the more mental content and intelligence. Dr. Ormond would argue that unless evolution is posited in a spiritual potence no explanation can be given of the origin of mind. The real nature of mind is that it is aware of itself as mind but cannot be aware of itself as brain. Tyndall and another great scientist, maintain there is no bridge by means of which we can connect brain and mind. While it is true physical and mental life appear together, advance together, fail together, and disappear together, we have no evidence that physical energy ever becomes mental energy. Thoughts and feelings demand a subject and have no meaning apart from the abiding and unitary self. Materialism and sensationalism try to account for experience without a subject, but thoughts and feelings imply a unifying intelligence and rational life, a unitary consciousness. Since to think is to compare, to unite, thought by its very nature must have a single subject to grasp in the unity of a single act things compared, distinguished

and united. Unless the unitary self grasps both premises in a single conscious act in a syllogism there can be no conclusion, for the knowledge of the many is possible only through the unity of the one. The spiritualist says the soul remembers, the materialist asserts the brain remembers. If the materialist claims that memory depends upon nervous action we are left without a unitary consciousness which would fall asunder without the unity and identity of the subject. Materialism fails to explain the simple facts of consciousness, is depressing and paralyzing and suicidal in implications.

This is materialistic and commercial age and materialism has changed education from the purely intellectual and cultural side to the industrial and vocational activities of life. This new movement in education emphasizes the material side of life and minimizes truth for truth's sake. According to the industrial movement, no knowledge is of any value unless it functions in practical and social life and aids the individual in accumulating the material wants and needs of life. In answer to this new movement in education a noted educator writes: "We may well turn for a season to a new cult of the habit of reflection, of sound and tender feeling and of ethical and aesthetic insight and appreciation. The *Wille zur macht* will one day be the undoing of democracy unless it is guided by a profounder knowledge and serener contemplation." Materialism has invaded psychology and the prospective teacher is now studying brain cells, neurons and dendrons in the hope that he may understand better the mind and be able to give *intellectual* instruction in accordance with this new cult. Education is now considered a brain development by the materialistic school rather than a spirit-

ual process. But the fact is, education is an intellectual process, the school is a mind unity, teaching is an intellectual activity and life is not wholly physical and physiological but in the last analysis is spiritual.

Naturalism is that theory which explains the order of the world by efficient causation rather than by final cause and accounts for experience by the method of natural science. It reduces mental and moral processes to the categories of natural science,—mind is made quantitative and ethics, a calculus of pleasures. Naturalism adopts the dictum of Laplace and maintains that science has no need of a theistic hypothesis. It despiritualizes nature and asserts that matter is the one absolute reality; it teaches that there is no knowledge save scientific knowledge and that this knowledge is non-theistic. Tyndall says in speaking of this doctrine, "You who have escaped from these religions into high-and-dry light of the intellect, may deride them; but in so doing you derive accidents of form merely, and fail to touch the immovable basis of the religious sentiment in the nature of man." Naturalism has attempted to destroy teleology and has tried to include in its destruction the heart of the educational process. For these thinkers, thinking is mechanical, teaching, purposeless and education, the manipulation of efficient means. Both in nature and in education the material is not fundamental but rather the teleological and spiritual which underlie both nature and education. Both natural law and the law of the school are teleological as every hypothesis presupposes a means to an end and both nature and education must conform to the conditions of intelligence. In the language of Kant intelligence makes the educational process. If we consider education from a naturalistic standpoint and do not

take into consideration purpose or final cause then education is mere training and is as applicable to the animal as to the human being. Purpose organizes the school, determines the course of study and fixes the aim of human life. Since science cannot explain the educational process, it is necessary to have a metaphysics of education to give us a rational interpretation of the world, education and life.

Both nature and the school are considered as a mechanism or an organism. If the former, they are explained by redistribution of matter and motion; if the latter, by an inherent energy seeking an end for which they were created. The theory of mechanism has been applied to psychology, sociology and education. A complex mental state, a complex social order or a complex educational process may each be referred to the simple elements which compose it. A complex social effect is the resultant of the manifold factors which enter into it. A complex educational situation is made up, according to the mechanical theory by simple educational factors. In nature, in society, and in education the simple explains the complex and the whole is made up of a unity of the parts. Mechanism is a principle of method and insists upon our analyzing every compound into its factors and then by synthesizing the factors construct the whole. While mechanism expresses a just demand of intelligence it can never explain itself and is the method of infinite regress. As we cannot understand the nature of the cell by analysis, so we cannot understand the nature of the educational process by studying its isolated factors. In nature and in education a complex of interacting elements is impossible except as dependent upon a basal unity whose purpose is the ground of the whole system. We must,

therefore, study the whole before the parts for the *idea* of nature or the *idea* of education determines the factors or elements entering into the processes. Interaction which underlies the mechanical system is itself the free and continuous activity of the infinite. We conclude that education cannot be explained by any mechanical mode of thought, but must be explained from the organic point of view or from the view point of some form of teleology.

Positivism is based upon the positive sciences and excludes all forms of speculation. It is allied on one side to agnosticism and denies the possibility of the knowledge of reality, and allied on the other side to phenomenalism which teaches that we cannot know either efficient or final causation or anything except the relation of coexistence or sequence in which sensible phenomena are found. It insists on the organization of the data of science, on the value of science for practical life and the aid of science as a moral and spiritual guide. It confines itself to positive scientific facts and has nothing to do with first principles or causation. In so far as the Epicureans recognized only that which passes with sense perception as a fact but regarded such facts as completely certain, their theory may be designated positivism. This form of positivism was developed by the empirical physicians. Observation is considered the basis of the physician's art and observation retained in memory is regarded as sole essence of his theory. Sturm, the pedagogue, determined the task for education by bringing the individual to the point where he knows things. The settling of facts by sense experience is for Hume intuitive certainty. There is no knowledge of what things are, and we can only know what we perceive by the senses. Comte worked out

his positive system of the sciences and claimed human knowledge had to do with only the reciprocal relations of phenomena and that it is irrational to talk of first causes and ultimate ends.

The doctrine of positivism has put emphasis in the school on science, object lessons, nature, study, and perceptual training in general. The Pestalozzian principles of beginning with the senses, of reducing every subject to its elements and the modern movement of nature study is but an emphasis of the doctrine of positivism. The emphasis upon science rather than upon the humanities had its origin in the Comtean philosophy of facts and has modified the modern curriculum by substituting for the languages the positive facts of science.

The Psychological Group.

Sensationalism, associationism, intellectualism, and voluntarism constitute the psychological group of philosophical systems which have had a marked effect upon the theory and practice of education. That doctrine which teaches that all knowledge originates in sensations, and that all cognitive and reflective ideas can be traced to elementary sensations is called sensationalism. The content of consciousness is derived from sense-perceptions and the higher activities of mind are the results left by impressions originally made upon the mind by external objects. These unconnected impressions are organized into mind terms by the laws of association. The maxim of this doctrine is *nihil est in intellectu, quod non fuerit in sensu.*

While Hobbes was the founder of this doctrine of psychical life, Locke taught that sensations give us knowledge of the external world, and reflection, of

the internal world. John Stuart Mill says matter is the permanent possibilities of sensation and mind is a series of feelings with the possibilities of feelings. This class of thinkers believes that consciousness is made up of units of feelings or impressions bound together by the laws of association. Sensationalism does not provide for a unitary self and considers a judgment, a grouping of impressions. The fact is an impression or unit of consciousness is not possible except in and through an abiding self. An impression or a sensation cannot become anything for intelligence only on the supposition of a constitutive, organizing, classifying activity of thought. Instead of the sensations being elements out of which the intellect is formed, they are really products of the intellect. The objection to sensationalism is that these impressions left to themselves are not intelligible and mean nothing except through an immanent activity of the mind. It is generally thought that sensations are the raw material of knowlege and that the mind is constructed by grouping impressions, but the truth is the self makes the impressions.

Sensationalism has had a marked effect upon education as it has been responsible for introducing into the school object lessons, nature study, concrete facts and elementary science in the grades and has given interest and value to the revised high school and college courses of study. Sense training has been emphasized in drawing, botany, physiology, geography and many other subjects. In fact there is a sense phase in history and sense percepts to be learned in mathematics and other subjects of study. It is thought that the child lives in the realm of the senses and that spelling, reading and arithmetic must be taught by appealing to sense data. Mensuration,

square and cube root should be taught by such apparatus that will lead the individual from the sense impressiom to the more abstract principle. In reading, history and other subjects pictures are used to represent the primal elements of knowledge of these subjects. A chemist with his retort, the botanist with his plant, the anatomist with his skeleton and the geologist with his trilobite are examples of sense training. A close study of the educational process reveals the fact that much work is education is sense training and that sensation is one of the principal avenues to knowledge.

Experimental and physiological psychology have carefully studied the senses and have added valuable knowledge in sense training and sense knowledge. We understand the law of the relation between the stimulus and the sensation and the possibilities and limitations of sense knowledge. The hot and cold spots on the surface of the skin, tests in hearing and seeing, after-images, color sensations, etc., indicate the extent to which the senses have been studied. These tests have had a practical bearing upon the problems of the school room and have been constant factors in the solution of many difficulties in education. While it is true that the original doctrine of sensation cannot be accepted (that is, a sensation without a unitary self), it is also true that sense perception has played an important part in educational work.

Associationalism is intimately related to sensationalism as it furnishes the bond by means of which the sensations are organized into knowledge. Hobbes in his study of empirical psychical activities became the father of associational psychology. In studying the internal mechanism of the psychical activities and the development of the higher out of the lower states,

Hartley uses the term *association*. As previously discussed Hume gave us the laws of association.

These laws of association have been of inestimable value in education. The teacher using the law of contiguity in geography has a valuable method of teaching these subjects. Comparison and contrast are pedagogical principles used in all subjects. In noting likenesses and differences of North and South America, of pentramite and trilobite, of Jefferson and Hamilton, of Longfellow and Whittier, the teacher uses a familiar and fundamental law of psychology. The same law is followed in distinguishing the sign from the thing signified, the word and its meaning, and the sensuous picture and its psychical significance. The many figures of speech, pun, metaphor, simile, etc., are examples of the use of the law of association which shows how intimate a philosophical principle is related to the actual work of the school. In thinking things that are found together in space and time, one thing recalls another; the cause recalls the effect; ideas recall similar or dissimilar ideas. Many philosophers have tried to reduce the laws of association to one law called redintegration. This law when formulated says when any part of a previous state recurs in experience the mind tends to complete the past experience. The laws of associations are descriptions not explanations of the reproductive process. They classify experience and show the movement of the mind by which it remembers facts.

That theory that makes the intellectual function of the mind more fundamental than feeling and will is designated intellectualism. It makes the ultimate principle of the world thought or reason and holds that this ultimate reality is knowable. T. H. Green would say that all reality consists in intellectual relations.

According to Plotinus and Hegel beauty is the shining of an *idea* through a sensible medium. In the Socratic doctrine, that knowledge is virtue, we have a species of intellectualism.

The Greek mind was intellectual, the Roman and Hebrew mind, volitional. Voluntarism teaches that the will is the essential element of mind and that it is the ultimate reality of the world. (Schopenhauer). In intellectualism we will what the intellect says is good but in voluntarism the choice of will determines what is good. In the former, final blessedness is attained through contemplation; in the latter, blessedness is an activity. This principle is seen in Kant's primacy of the practical over pure reason. According to the Hegelian conception, the world is the development of the idea.

During the last century education has been intellectual, but modern education is putting emphasis on action or doing. Whatever may be said of the doctrine of learning to do by doing, learning is an intellectual process, a process of transmuting into mind the thought and spirit of the world. While it is true we have an emotional and volitional nature, still education must be in the very nature of the case largely intellectual. To understand the fundamental branches of knowledge, languages and literature, mathematics, history, philosophy or even the metaphysics of education, we do not use the will so much as the intellect, and the intellect must still remain the basis of all educational work. In the modern movement of industrial education, manual training, domestic science, we have an emphasis on voluntarism but still to know the elements of even these subjects requires intellectual activity. Intelligence still seems supreme in education.

The Epistemological Group.

Four of the principle systems of philosophy which discuss the nature and origin of knowledge are empiricism, phenomalism, rationalism and agnosticism. The problem of epistemology is closely related to the problem of education, since one of the chief aims of education is the attainment of knowledge. In empiricism truth is to be found in sense experience, and apriori knowledge is considered impossible. According to Locke all knowledge is caused by actions of objects upon the mind; it may be said that English philosophy has continued to be empirical during the greater part of the nineteenth century. Empiricism denies innate ideas and is in harmony with the scientific method of observation and induction. Nativism differs from empiricism in holding that knowledge is not due wholly to experience but partly due to native constitution of the mind. This native constitution is not due to inheritance so much as to incidental variation. As empiricism has had the same effect upon education as sensationalism it will not be necessary to discuss the relation between empiricism and education.

Phenomalism teaches that knowledge is limited to phenomena and that it is impossible to understand reality or the thing in itself. Kant says there are two worlds: the phenomenal and the noumenal and that the former only can be grasped by thought. However, modern thinkers tell us there is a causal world behind the phenomenal world which can be grasped by thought or reason. Others teach that phenomenon is a manifestation of reality and in knowing phenomena we know reality. In Kantian language, "All our representations are no doubt re-

ferred to the understanding to some sort of object and as phenomena are nothing but representations, the understanding refers them to a *something* as the object of our sense intuition."

Spencer gave an impulse to scientific education and was instrumental in the schools studying natural phenomena. From the time of Rousseau, education began to change from a study of books to a study of things. Since the study of natural phenomena has a direct bearing upon practical and commercial life it has had a prominent place in the modern curriculum. It is thought that knowledge of phenomena is more important than a knowledge of the humanities, and, therefore, science has become an attractive subject in all grades of school work.

Rationalism is the doctrine that reason is an independent source of knowledge distinct from sense perception and having a higher authority. It asserts that the prerogative of the intellect is supreme in all matters of truth. Democritus and Plato both looked to thought for knowledge of what is, for the knowledge of the true and real is essentially an idea. In regard to the origin of knowledge, rationalism makes the statment that much knowledge exists through the thinking of the human mind. It is that knowledge that is gained through the syllogism rather than through experience. Kant attempted to reconcile rational and empirical knowledge and said there are two stems of knowledge, sense and understanding.

Education is still dominated by rationalism. The primary truths, axioms and principles of mathematics are apriori or rather than aposteriori. Unless the truths of mathematics are rational they are impossible. Rationalism in education emphasizes the thinking process. The student must learn that thought thinks

thought and thought recognizes itself as the creative energy of man's products and in the absolute sense, the whole world.

The unity between the mind and the thought in the sentence, ideas in history, or thought relations in the human body is a mental or organic unity and is based upon the rationalistic interpretation of the world.

Agnosticism is a word coined by Professor Huxley to express the doctrine that man by his very nature is incapable of forming trustworthy conclusions of ultimate reality. It teaches that human knowledge is limited to experience and that the mind cannot know anything of the real nature of things. It is really an exposition of the bounds of human thought and knowledge and claims that the absolute is unknowable. Matter and mind are phenomenal manifestations of one unknowable substance for the natural man can know nothing of the divine nature. To speak of knowledge of the real is to Spencer an undemonstrable assumption, but for some of the Neo-Hegelians it is possible to unify the finite mind and the Absolute Mind. Kant would have us say we can know the world as it is constructed through the determinations of sense data by the forms of consciousness. We can know only the phenomenal but the noumenal is beyond the grasp of thought. We can know matter in the terms of consciousness and consciousness in terms of matter, but we can know neither in itself. Spencer's doctrine is we cannot know the ultimate scientific and religious ideas and the relativity of knowledge, but he knows enough about them to know they are unknowable and that the unknowable is a Power.

The young student is inclined to be agnostic in not being able to know what is to be known. He soon

realizes the existence of things is different from the knowledge of them and that all we know of the outer world is knowledge built up in the mind itself. The only cure for agnosticism is to realize that the outer world is rational to the core and has in it an element akin to our own nature. The knowability of a thing implies its rationality, and the possibility of a unification of the terminal aspects of a unitary reality. The scientific attitude is frequently the agnostic attitude for all we know is what we can see, or put in Tennysonian phraseology, "Knowledge is of things we see." The student should distinguish the knowing mind from the believing mind. Again Tennyson asserts that the agnostic is right in teaching the absolute is unknowable, but is wrong in saying that the human mind is shut out from the eternal principle of things. Faith transcends reason and when the human mind cannot know, it may still believe. Since the eternal truth is so difficult to attain, many become agnostic and think that reality lies beyond the grasp of human knowledge. Frequently the young scientist loses his faith in God because he cannot know him through the ordinary tests of knowledge. He cannot find Him by the scalpel, by the telescope, nor by the microscope and concludes He is unknowable.

The Ethical Group.

The principles of education are derived from psychology and philosophy but the end of education has its origin in ethics. The following systems of ethical thought constitute the ethical group, hedonism, utilitarianism, intuitionalism, and transcendentalism. Hedonism is the philosophy of happiness and morality is reduced to the pursuit of happiness. Aristippus

claimed that happiness is the state of pleasure which springs from the satisfied will. Epicurus made pleasure the highest good but prized mental joys higher than physical enjoyments. Pleasure is the good and the function of educational ethics is to give us a method of realizing the good. It is held by some that pleasure is the only rational and possible aim of action. The Hedonistic view is usually abandoned for the eudemonistic theory, which makes happiness an abiding well-being rather than momentary pleasures. No ethical writer objects to happiness but the problem is to determine what true happiness is.

School duties must be regulated in such a way as to create school happiness, for no teacher is successful who does not make the children happy. Happiness ethics is school ethics and the greatest happiness to the greatest number is a pedagogical maxim worthy of consideration. Hedonism introduces athletics, games, clubs, literary societies and other sports which have for their aim the promulgation of the happiness and pleasure of the student body. A college president recently stated that not many years ago there were but few boys who went to college without a serious purpose, but now it is fashionable to go to college on account of the attractions and sports of college life.

High schools, colleges and universities spend much time and money in providing for the happiness side of education, which has become an important factor in modern educational life.

Utilitarianism is that ethical theory which teaches that conduct should be that which produces the greatest amount of happiness to all. This definition was formulated by Bentham as the greatest possible happiness to the greatest possible number. Windle-

band interprets the above principle as follows: "An action is the more pleasing in proportion as it produces more happiness and in proportion as the number of men who can share this happiness becomes greater." The utilitarians would object to any action which is not conducive to universal happiness. They lay great stress upon social and political activity. The utilitarian doctrine discusses the good rather than the right and regards ethical ideas as the result of experience. According to one thinker conduct should be regulated and harmonized with the pleasures and sensibilities, and according to another pleasures should be guided by prudence.

This doctrine of ethics is applied to the field of legislation, political reform and education where the greatest happiness principle is the only standard of action. Bentham's principle was that every individual is to count for one and no one to count for more than one. It is the function of the recitation in school to do the greatest good to the greatest number; it is unpedagogical to spend too much time with the dullard or with the brilliant student, but the teacher should aim to give to the greatest number of students the greatest possible good. In order to secure the greatest possible good the Batavia system uses a second teacher in each class room who assists the greatest possible number in order that the principal teacher may realize the aim set forth byBentham. The teaching process itself may aid in attaining this result by securing perfect, organic, spiritual unity between teacher and pupil.

Schliermacher has shown that there are three leading moral ideas: the good, duty, and virtue. Intuitionalism declares that duty is the first fact in moral obligation and that the categorical imperative is the

guide. Without giving any reason it declares Thou shalt or Thou shalt not. Instead of realizing the good this theory takes into consideration a law to be obeyed. The basal principle of ethics is better expressed in the notion of duty than in the notion of the good. The duty ethics is distinct from the good ethics and is a better guide to action. Kant's ethical principle, "Act so that the maxim of thy conduct may be fit to be universal law." Sedgwick defines intuitionalism as the method that recognizes rightness as a quality of inherent action. He associates intuitionalism with moral perfection and says right conduct is determined by the actions themselves without considering their consequences. The pragmatist maintains that morality cannot exist without considering its consequences. While it is difficult to distinguish the act from its consequences intuitionalism puts the stress on the act rather than on the consequences. That method of ethics which takes into consideration the perfection of conscious existence, coincides with the ordinary form of intuitionalism.

In the school the pupil has duties to the teacher, duties to other pupils and duties to themselves. It is the pupil's duty to himself to offer to the school atmosphere a clean body, to perform assigned tasks willingly and to assist in elevating the moral tone of the school. He must at all times obey the law of truth, the law of the school and live in harmony with the law of reason inherent in the world. However, the test of the pupil's moral nature lies in his relationship with his fellow pupils. He must live in accordance with the moral ideal and in harmony with the oughtness within.

Transcendentalism assumes that moral consciousness is a phase of the eternal consciousness and that

the world, man, nature, history, science, art, religion, and all being are manifestations of the universal reason. That conduct is best which most perfectly mirrors the eternal principle. It is the duty and privilege of each person to realize all the potentialities in his nature and to transform his real nature into an actualized condition. The principle of this philosophy is, Be a person and respect others as persons. This is the doctrine of self-realization or perfection whose keynote is personality.

In self-realization we have a direct application of a metaphysical principle to the problem of purpose in education. This is an instance where the controlling factor in education is drawn directly from metaphysics. The pupil is constantly struggling to realize his true worth, to change his potence into actuality. The pupil in obeying the inherent law of the school and of the world is fusing his rationality with the spiritual order of things and thereby attaining peace, unity and harmony with the world order. The aim of life as well as the aim of education is perfection, rational freedom. Education aims at the realized self which is not possible in isolation but only in and through persons other than himself.

Unless a principle of education is at the same time a principle of life it is not worthy of study or consideration. Self-realization is the law of life which means that we sacrifice the lower life and, therefore, the life of a spiritual being is a continual dying. Only as the lower self dies can the higher self be realized. The individual must die to an isolated life, a life of immediate desires in order that he may live the spiritual life, the universal life which belongs to a self-conscious being.

The Theological Group.

This group of philosophical systems orients the educator and gives him a world view of things. If philosophy means anything to the educator, it gives him a perspective and outlook upon the world which relates his activities to the activities of the objective order. These four systems discuss the world as a necessity, these transcendence of divine existence and the world identified with the divine reason. These systems gradually lead the thinker to theism which must give education, universal significance and show how the cosmic processes are related to the educational processes.

Atheism discredits reason, destroys duties and responsibility and makes logical thought impossible. In any system of necessity there is no guilt nor innocence, no merit nor demerit, no obligation nor responsibility, for atheism rejects consciousness and becomes a mental outlaw. Dr. William T. Harris relates atheism to education and says, "Sense perception is atheistic. It finds each thing sufficient for itself,—that is to say, self-existent and yet without self-activity."

Deism regards the world as needing only to be created and claims that it is thereafter able to exist entirely on its own account. God is a *Deus ex machina* and is needed only as a first cause or as a prime mover. It may be compared to the school which is organized by the teacher and supposed to be able to operate itself without the presence of its originator. The school has no more power to exist within itself than does the world and hence deism is true neither educationally nor cosmically.

In pantheism the world is regarded as part of the

Absolute who is either the background of all existence or who emits all existence from himself. It does not distinguish the absolute from the world but makes it a part of one eternal being. As all the waves are a part of the ocean and all thoughts of the school emanate from the teacher, so all existence springs out of the fullness of the eternal one. Metaphysics shows that reality is never a stuff but an agent, not substantiality but causality. Since this agent is unitary, it is impossible to identify, according to some thinkers, it with the world. In pantheism the absolute absorbs all things unto himself, but the teacher needs a theism in which there is a living and immanent reason in whom we live, move and have our being. Dr. Harris connects pantheism with education as follows: "The understanding is pantheistic; it finds everything finite and relative and dependent on an absolute that transcends all qualities and attributes an unknown and unknowable persistent force which is the negative of all particular forces."

The *Nous* of Anaxogaras laid the foundation for a theistic conception of the world. Theism believes in the personality, transcendence and immanence of the absolute. From the nature of the world we are led to believe in the existence of an underlying principle which is self-determined. The order in the world implies intelligence and the theist refers the law and order in phenomena to a hidden power which is rational and personal. In a study of organic life we find an activity according to a law that activity refers to a future purpose or end. If the supreme intelligence manifests itself in organic life, it also manifests itself in organic life as grains, ores, etc. The teleological argument is based on purpose-like adaptations found in the world. The order in the world, these

adaptations, and finite intelligence can be explained only upon the theory that there exists a supreme intelligence in the world. The marks of design in nature indicate intelligence and a forward look to the realization of a definite end.

T. H. Green maintains that a system of relations indicate an intelligence as its source and intelligence which has in its notion unity, identity and causality must be traced back to a divine thought. The theist insists that the world began in intelligence, that it exists in intelligence and its rationality is found in the fact that meaning or thought exist at both ends of the series. To solve the problem of theism we must have free intelligence as the eternal principle and the finite knower who is able to unify his thoughts with the thought immanent in the world. Metaphysics makes cosmic intelligence a necessary implication in thought and knowledge and hence the thought process as well as the educational process run parallel to the divine process. Since personality means self-knowledge, self-control, self direction, self-determination and intelligence the conclusion is that the eternal principle of the world is personal.

It will thus be seen that there is a parallelism between the educational process and the world process. Since education is a rational process and since we have proved that the world is shot through with reason, the inference is that the two processes are terminal aspects of a unitary principle. The problem of the metaphysics of education is to trace the spiritual principle through the world, through the school, through the teaching process, through mind and life and show that this universal reason furnishes guidance and direction for the whole scheme of education. This hidden power running through the world is the

basis of all subject-matter in the curriculum, the immanent principle of mind activity, and the organic principle which binds teacher and pupil together. Theism is a necessary philosophy upon which to build a rational system of education. Dr. Harris again shows the relation between metaphysics and education: "Reason is theistic because it finds self-activity or self-determination and identifies this with mind."

The Modern Group.

Modern thought is now discussing, among others, the four following systems of philosophy, evolutionism, realism, humanism and pragmatism. As evolution has already been discussed we will merely give a few evolutionary principles which have a bearing upon education; namely, the significance of infancy and the inheritance of acquired characteristics. According to John Fiske infancy is prolonged that the child may acquire aptitudes necessary for an adult life. There is perhaps a gain in not inheriting acquired characteristics, for we thereby avoid many undesirable inheritances. A serious study of evolution in relation to education will account for many principles, processes and methods of education. In applying a theory of evolution to education we are dealing with a chain of facts, with a series of empirical tendencies which are bound together by efficient causes rather than by final cause. However, a true study of the metaphysics of education will give us ideas and purposes which guide educational procedure. These aims, as we have said, are supplied by ethics rather than by philosophy. Such an inquiry would lead us into a discussion of the ultimate ideas of human life and the underlying principles of knowledge and

existence. It is the purpose of philosophy to try to find the meaning of things by considering them members of one organic totality.

Realism, called the common sense philosophy, is the doctrine that things do not depend for their existence upon our knowing them, and that they may continue to exist without anyone thinking them. The realist would say that truth implies reality but does not create it, and that the real things are the objects perceived immediately. It may be asked, do we perceive the object or do we perceive a mental event in consciousness? Some would say that the thoughts we have of red are red thoughts, and the thoughts we have of fire are hot thoughts. Others would say there is no redness in the stimulation that gives us the sensation of red but merely a certain wave length of light. There is no objective sweetness in the sugar which calls forth the sensation of sweetness but a certain chemical action produces the sensation of sweetness. The problem in questions of this kind is, whether the sensation is intra-mental or extra-mental. One leading realist says we cannot imagine ourselves away from objects without them vanishing from our grasp. This statement implies that the mind is a factor in sensation and perception and the thought of a thing is different from the thing itself. Yet the realists insist that a thing is, was or will be what it is as it is experienced. Realism does not agree with idealism, "no object without a subject," but maintains that knowledge and existence are separate entities and that the real is external to and independent of thought. It is true that objects known do not depend for their existences upon the knower but it is equally true that our experience are all based upon reality.

Objects of experience have existence independent of consciousness by which they are represented. Realism maintains mind and matter have only superficial reality but both are expressions of an underlying law unitary in character and from the Spencerian standpoint unknown to us. Spencer knows enough about the unknown to call it one but still says it belongs to the field of the unknowable. What we know of the outer world is through sensation and perception and if these mental activities could continue without the action of the world, the world might cease to exist and we would have the mental activity. The idealist would say to the realist that the mind builds the world out of its own states of consciousness. The realist allows only sensations for the material for world construction. The idealist would add apriori ideas but both thinkers must construct the objective out of the subjective. Both the idealist and realist believe in an objective ground of sensation and do not differ in the fact of reality but in the nature of reality. The realist's position is, the world is a complex of substantial things endowed with forces, having the capability of change. These exist apart from thought and when we perceive them we recognize them but add nothing to them. The idealist thinks under the law of substance and attribute and explains the uniformity of existence by divine purpose. When the realist says the qualities are in the object apart from experience, he means they are there potentially for any one who fulfils the conditions. The idealist would say that light, sound and odor are contributions of the mind and apart from the mind there would be nothing luminous, resonant nor odorous. The realist claims that the primary qualities of matter are independent of thought, but the idealist answers

size, extension and distance have merely a subjective existence. Dr. Woodbridge makes consciousness as natural a growth as the tree, and that its existence and growth depend upon the same natural laws as other objects depend upon for their existence.

Education has felt the influence of realism in the Spencerian attitude toward knowledge. In his scheme of education science is the most important subject to be studied. The child is introduced to the world of reality and studies objects rather than descriptions of objects. The philosophy of realism seems to be in harmony with the scientific and commercial age. Education now teaches the individual to seek physical freedom rather than spiritual freedom and to understand and control the forces of nature. The industrial and vocational idea in education should be modified by the philosophical attitude which seeks reality not in sensation and perception but in a universal principle of reason.

Humanism is a philosophy dealing with human beings struggling for human experience by means of the human mind. It teaches that man is the measure of his own experiences and that the external world depends upon human experience and that philosophy must discuss the problems of life. Humanism is not in accordance with intellectualism but with the larger life of man and emphasizes not the academic man but the man in general. If pragmatism is voluntaristic, humanism is personalistic; the former studies the world as a process; the latter, discusses cosmic personality and its kinship with man.

Humanism is not content to discuss rational intelligence alone but is interested in the whole life of man; it has no interest in logic apart from life and personality. Humanism sets forth the doctrine that truth

is human and that it cannot exist without human effort and human action and that it must be related to human interests and human purposes. It does not discuss the correspondence of the concept with the object but investigates the needs of human life. An exponent of humanism says, "Truth and reality grow for us together in a single process which is never one of bringing the mind into relation with a fundamentally alien reality but always one of approving and extending an already existing system which we know. Truth is a species of valuation, a label we put on our experiences to make them valuable to life." Humanism believes in the purposiveness of human thought and human experience and while it has something in common with idealism it is more intimately related with realism and holds that reality is experience, and that all mental life is purposive. It explains both realism and idealism by noting their genesis and separateness from human action. Personal idealism does not make an abstraction from personality but includes the personalistic element which is so essential in knowledge. Humanism is both idealistic and realistic and takes into consideration both the human and divine.

The humanist would base his study on the Hellenic axiom, "Know Thyself" and that "man is the measure of all things" rather than upon an eternal and immutable ideal. He demands that man's integral nature should be made the basis of philosophy and that the human being is constantly improving and making truth coextensive with life. Humanism as a method of thought points to the ultimate reality of human action and freedom and becomes an attractive philosophy of life. The humanistic ideal has its origin in the human standpoint, must be related to

actual life and although having an influence upon human existence the idea must be realized by the development of the total life. In fact an ideal must be realized in experience, must be applicable to the actual and must not apply to some ethereal entity but to some real human want, need or aspiration.

True education is humanistic and deals with the whole experience of the individual. It has its origin in human life, its method in human activity and its aim in human perfection. Education does not deal with the intellect alone nor with any one phase of human life, but considers the total single self. This new philosophy does not consider knowledge and truth as perfected but in process of making. The ultimate reality which this philosophy discusses is not an eternal reason but an eternal experience. It emphasizes the teleological factor in human life and announces in favor of personalism rather than in any species of impersonalism. The ideals of humanism are not on the border land of dreams but are in and through human activity itself. It transforms the ideal of the absolutist into a human ideal that is related to the actual concrete experiences of human life. Humanism unites the best in idealism and the best in realism and formulates a philosophy of life and education which harmonizes with the actual concrete processes of the school and of life.

"Pragmatism will seem a special application of Humanism to the theory of knowledge" writes Schiller. It may be psychological, logical or metaphysical. Psychological pragmatism, Dr. Calkins says, is a recognition that the purposive character of mental life must influence and pervade our remotely cognitive activity. It lays stress on the non-cognitive aspects of experience. Logical pragmatism teaches

that the concept of the use, value or consequences of a thing forms a part of the conception of it, and in another form, forms the sole conception of it. Many would agree in the former notion of pragmatism but few would admit that the use of a thing makes up its whole conception. In fact the conception of a thing, of a moral act, of a tree, or of an engine is more than its use or consequence. Metaphysical pragmatism, according to Miss Calkins, claims that reality is to be defined in terms of a progressively unfolding experience.

The following are the seven formulations of pragmatism, according to Schiller: (1) Truths are logical values: (2) The truth of an assertion depends upon its application; (3) The meaning of a rule lies in its application; (4) All meaning depends upon purpose; (5) All mental life is purposive. (6) A systematic protest against all ignoring of the purposiveness of actual knowledge; (7) A conscious application of epistemology (or logic) of a teleological psychology which implies, ultimately a voluntaristic metaphysics. Pragmatism identifies logic with functional psychology, objects to realism and a priori knowledge and believes in a reciprocal determination of thought and reality. It defines truth in terms of relativity and change and maintains that reality is constantly evolving, or all things flow as Heraclitus asserts. The pragmatic writers discuss the teleological phase of empirical thought and claim that we must look forward and not backward to the real meaning of an idea. The value of an idea depends upon its function and a value of a doctrine of education or of life depends upon its successful operation. Dr. Dewey says the essence of an idea is never fully comprehended until both its whence and its whither are known. We must understand

an idea both prospectively and retrospectively in order to get its full meaning. Both the pragmatist and apriorist maintain that all knowledge must have its foundation in the world of concrete facts. It is true that thought passes through fact but it is also true that thought finds itself in the realm of fact. The pragmatist's contention is that reality is dynamic and that the mind is created by phenomena and is not different from the object which it thinks. The world is our own making. Without us nothing is made which is made says Schiller. This doctrine sets forth the idea that thought and its object can be reduced to unity and the unity takes place in experience. It claims that there is also a connection between thought and action, but how to explain this connection is not clear. If an idea is apriori it has no connection with an object and can only fit an object when the object makes the idea. This is in the realm in which Kant unified the sense world and the world of understanding, therefore, rationalism must necessarily include empiricism.

The synthetic unity of apperception is the principle by means of which ideas are welded together into an organic whole. In having an interest in a situation we construct reality and the union of the elements of a judgment is an expression of this purpose. The doctrine of the pragmatist is that every judgment reconstructs reality and that knowledge is constantly growing. Cognitions are teleological and all knowledge functions in behalf of our needs. The meaning of an idea is revealed in action or as Dr. Royce says, an idea is a plan of action, and a fact is the fulfilment of the plan. If an idea never attains its designed purpose there is no completed fact but still the idea is constantly becoming fact.

While it is true that thought is instrumental and that a judgment has a practical use, but still the more fundamental use is just to be true. The crux of the pragmatist's theory is that if an idea be instrumental, how can it at the same time be functional? According to the James-Lange theory we do not act because we think but we think because we act. The needs determine the ideas rather than the idea determines the need. Pragmatism is grounded in evolution and has merely restated the problem rather than originated a new doctrine. The pragmatist never tires in telling us that the idea of the infinite are apriori, cannot arise in the finite whose knowledge begins with experience. The pragmatic adherent would say further that there is an absolute perfection toward which the universe struggles but the human mind is not able to grasp absolute truth. The goal of human endeavor is beyond us but we are nevertheless moving toward it. Unless man has some knowledge by which he can get some insight into absolute intelligence how does he know he is moving toward absolute truth?

Pragmatism would have the educator to develop the volitional and emotional nature of the individual as well as the intellectual. It teaches that knowledge is of no value unless it functions in life. It has a tendency to disparage the cultural side of education and lays greater stress upon the practical side. Herbert Spencer in his discussion on Moral Education was the first perhaps to apply the doctrine of consequences in an educational way. He asserts that when a child commits a wrong act that he must suffer the consequences and that the nature of a moral act does not depend upon the intention but upon the consequences. This is the pragmatic theory of consequences applied to education. The educator, however,

is not willing to accept the statement that the consequences of a thing make up its sole conception for a child may do a wrong act in school without having any detrimental consequences and yet the act from the very intention is immoral and hence this doctrine of ethics does nor harmonize with the nature of education. Again the teacher is not willing to accept the proposition that the truth of an assertion depends upon its application, for it may be true or false without any application. The pragmatic axiom, that the meaning of a rule lies in its application is a practical principle applied daily in grammar, arithmetic and other subjects. The meaning of the rule of cube root lies in its application. Pragmatism has made a contribution to education in putting stress upon the purposive. It is impossible to think of a school or a process of teaching without involving the idea of end or purpose.

The teacher is not willing again to accept the fact that truth is in the making, for there are some immutable truths of mathematics and language which are made rather than in the making. The forward look in the pragmatic doctrine which depends upon evolution and which is as old as Aristotle, is a valuable contribution to nature and education. The educator cannot agree with Schiller that the world is our own making unless that world is an epistemological world. Furthermore the unity of thought and thing does not take place in experience but must take place in thought. The unity of the world is possible by presupposing a divine reason which organizes man, nature, and God into an organic whole. Education cannot accept the pragmatic statement that an idea is revealed in action for many ideas of mathematics and science have little to do with action. As prag-

matism has its origin in evolution and as evolution and idealism are basic principles in education we, therefore, conclude that pragmatism has some educational value.

The Absolute Group.

Perhaps the best interpretation of the problems of education is found in some combination of the philosophical systems of this group. It is claimed in this thesis that the underlying principle of education is monistic, spiritualistic, personalistic and idealistic. The term monism was first used by Wolff in his discussion of the relation of body and mind in which he designated those thinkers who acknowledge only one principle. It is the doctrine which reduces the world to a unitary reality which the Milesians called water, fire or air; Anaxagoras, *nous;* Plato, The Good; Hegel, Idea and Schopenhauer, Will. Spinoza makes the one reality substance. "*Quod in se est et per se concipitur.*" The philosophy of Spencer is monistic and mind and matter are manifestations of an underlying reality unknown to the human mind. Since the human mind is a unity it constantly seeks for a unitary principle in the world which in the beginning of philosophical speculation was material and which has become more and more ideal and spiritual. For Fichte the world is made up of self and a not-self and ultimate reality is an absolute I. This absolute self is possible in a universe of finite selves and is necessary for their existence. The relation between the finite self and the absolute self is the relation of manifesting to the manifested. Schelling identifies nature and mind and considers both as manifestations of a deeper reality which he calls "identity." Since this higher reality is neither subject nor object, it is an absolute

identity which is the mediating process between the material and spiritual. The Kantian thing-in-itself is for Schopenhauer the will. Every object in the world is a manifestation of this will and the will which is expressed in the world is absolute. He would have us believe that the force which vegetates in the plant, expands the crystal, and turns the magnet, is a unitary principle called will. "It is the innermost nature, the kernel of every indvidual and the whole" which he claims appears in nature and in the reflective activity of man.

Monism, which in early philosophical thinking, was realistic reached its culmination in the monistic spiritualism of Hegel. He considers that ultimate reality is spirit, reason, person, and organic and living. This absolute self manifests itself in nature, history, aesthetics, religion and education. Nature is called the otherness of spirit; history, the progress of the consciousness of freedom; the beautiful, the idea manifesting itself in sensible form and education, a differentiation of spirit into teacher, pupil and curriculum. This theory is monistic and spiritualistic is an evolution of universal reason into its many manifestations. The school in its essence is a self, a spirit, a person, an organic unity which differentiates itself into the outer factors of education. The bond which holds the educational process together is a subtle force and one with the heart of the world. It explains the nature of the teaching process which is mental, beneath the physical, and spiritual, underlying the material. The possibility of uniting subject and object, the pupil and curriculum, rests upon the theory that both have a similar nature and that thought can think thought and reason can know reason. Hegel's spiritual principle also explains the nature

of method by uniting thought and thing through a common universal principle resident in both. It shows how thinking is possible by making the thinker and the thing thought terminal aspects of one eternal principle. It solves the problem of school management by making the pupil harmonize his life with the thought and life of the school and outer order. In obeying the inherent law of the school and nature he obeys himself and thereby attains his spiritual freedom.

Any discussion of monism inevitably leads to spiritualism for many of those philosophers accepted a unitary principle and considered it spiritual. Leibnitz claims that the essence of the world is immaterial and that force is spiritual in nature. His monads are psychical and related to a supreme monad. Berkley in his spiritualism asserts that a soul or spirit is an active being whose existence consists in not being perceived but in perceiving ideas and thinking. He was a subjectivist and put stress upon inner experience rather than upon empirical knowledge. German philosophy, particularly of Fichte, Schelling, Hegel and Schopenhauer, is spiritualistic and maintains that the ultimate nature of the world is some form of consciousness. In Hegelian terminology spirit is the truth of nature, freedom is the truth of necessity and the noumenon is the truth of the phenomenon. In fact self-consciousness or the self-determining spirit is the reality of things and is a principle which not only explains the world but the state, the church, society and the school.

It is not science but philosophy that has taught us that education is a spiritual process rather than a physical or physiological process. It is the function of education to correlate the mind of the student with

the mind of literature, science, history and other subjects. Education takes into consideration the fact that there is a mind principle in the world and a mind at the other end of the series which is able to comprehend and transmute this objective mind into subjective terms. Education and knowledge rest upon the philosophical principle that the world is one and that the human mind is able to comprehend this unity. Every factor in education has a spiritual phase and the whole scheme of education is but an objectification of the Eternal Consciousness.

Much of the monistic and spiritualistic philosophy is impersonal but some thinkers consider reality personal. Personalism teaches that this spiritual principle is a self or person or by the pluralistic personalists it is considered a community of selves. Both the monistic and pluralistic personalists believe that reality is personal but the former considers it a single self while the latter would make it a combination of selves. It will not be necessary to discuss the minute differences of these two schools of thought but rather to agree with both that the heart of the world is personal.

Personalism has an intimate relationship with education because it teaches that all reality including the school is personal. The school is spiritual in nature, the unity of selves or persons and is truer to life than any presupposition of impersonalism. The problem of educational personalism is to determine the nature, number and relations of selves which make up the school and ascertain whether the thought of literature and other subjects is personal or impersonal. Since thought from its nature must be personal the world which is but an expression of the thought of God is personal, and the thought of all literature,

science and history must also be personal because it is the thought of some thinking mind. The teacher knows he is a person; and as one ethical school says, must respect other beings as persons, therefore, the school which is merely the organization of persons is itself a person "writ large." Teaching is an activity existing between persons and has many personal elements, and personal freedom for its supreme end.

The three systems of philosophy discussed in this group are preliminary to and include the fourth; namely, idealism. Any theory that teaches that the universe is the work of mind is called idealism. This universal mind expresses itself in both mind and matter and all outer existence is but an objectification of this inner architectonic spirit. In order to account for the inflexible regularity of the world, its order, coherence and rationality, it is necessary to posit an infinite mind from which all things proceed. In this mind nature must be thought of as existing in a permanent system of determinations which are to be objectified in the outer order of things. An idealistic philosophy is a guide to both theoretical and practical life for the whole order of things has no meaning except through the experience and activity of mind. Our ideal of knowledge and conduct, which fulfils our aims and satisfies our spirit, transcends our achievements, for ideals, things that ought to be and are not, are the deepest realities within us. In fact ideals are the source of one's striving, for really our life is but the objectification of our ideals. Both life and education are processes for there is a constant motion from the ideal to the real, from promise to fulfilment. Idealism teaches the unity of the spiritual nature of things which dominates poetry, philoso-

phy and education and which give us the true explanation of teaching and learning. There is now a general belief in this unity of the universe and we now consider man, "not spirit *plus* soul *plus* body, but spirit, soul and body interfused." It is this spirit within which struggles for achievement and tries to realize its purposes, ends and aims. The ideals which are never attained, are still the operative powers in the individual and the essential factors in his existence. An individual is never at his best only when confronted with living issues and every advance in knowledge reveals greater difficulties yet to be solved.

Of all the systems of metaphysical thought, idealism gives the best interpretation of the educational process and shows that knowledge is a product of mind. The world with which the educator deals is the world built up by the mind. The objects of science are cast in the molds of thought and unless there is some rationality in the world it is unknown and unknowable. Since the world is an expression of thought and our thought has something universal in it, the unity between subject and object becomes apparent and thought finds itself in the thing. If this proposition were not true, knowledge would not be possible and the school and education would have no function to perform. Since the human mind and outer world must be traced to a common source in the creative thought and will of the absolute, then thought realizes itself in its otherness and finally attains its freedom. It is not possible to analyze the absolute reason only in its outer form, in finite mind, and in finite existence.

According to idealism the school is a spiritual unity of teacher and pupil and its objective form is but an expression of the inner living, formative principle. Whatever is, is mind before it becomes objective

reality. The mind automobile or the universal automobile always exists before the material thing. The ideal creates the real but the real returns upon the ideal and performs that function for which it is created. The ideal school must always exist before the real school. The objective returns upon the thought school and accomplishes the purpose for which it was created. The external school, school house, blackboard, teacher and pupil are but means for the realization of the school idea.

Every factor in the school, and every process in teaching, and every process in thinking are related to a world process which gives unity to difference. In order to make educational principles fundamental and abiding they must be based upon a world order and upon a cosmic movement. As the outer order implies an intelligence behind it, so the school order implies a rationality back of it. As all content has its form, so all the elements of the inner subjective school must have their corresponding objective phases. The outer school causes the pupil to realize himself in his ideals and shows how reason reveals itself in the objective order. The idea which creates the world and organizes the school is not a mystical thing, but an immanent constructive power which changes the potential into the actual. This self-determined, self-created principle found in all things is the living spirit that pervades all forms of activity and dominates all kinds of institutional life. This eternal reason is the connecting factor in every educational process, the all-embracing energy in the teaching process and the fundamental reality in the life process.

It will be seen in conclusion that metaphysics has a close relationship to education; for all thinking, all

knowing and all teaching are metaphysical in nature. In order that a metaphysics of education be possible there must be a uniformity and rationality in the world and an individual capable of transmuting this outer intelligence into inner meaning. Such an educational metaphysics traces the intelligence in the school, and the thought in subject-matter back to a supreme intelligence which is the presupposition and fundamental reality of existence and education.

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